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# NITROGEN, CALCIUM, AND PHOSPHORUS INTAKES OF COLLEGE WOMEN[1]

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ADULT dietary standards of 70 gm. protein, 0.68 gm. calcium, and 1.32 gm. phosphorus per day, per 70 kg. body weight (1), are commonly used for undergraduate college women. Leitch (2) estimated that an adult woman needs 0.55 gm. calcium daily for maintenance and suggested some increase as probably desirable, but made no recommendation as to the amount. Practically, 0.55 gm. calcium agrees well with the Sherman standard which is 0.54 gm. per day when scaled to the weight of the average woman (56 kg.).

Inasmuch as the majority of undergraduate college women are less than 25 years of age, the time at which growth is usually regarded as complete, it appears logical to assume that in many cases these individuals have not reached full development and consequently need somewhat higher dietary standards than those established for adults.

Recent studies of individual food intakes of college women eating freely chosen diets show that students had less nitrogen, calcium, and phosphorus than the adult standards in some cases and, in others, amounts equal to or exceeding these levels.

Hetler (3), Coons and Schiefelbusch (4) on the basis of ideal weight, Kramer *et al.* (5), and Latzke (6) all found mean protein intakes of college women to be below the Sherman standard of 1 gm. per kg. per day. Wheeler and Mallay (7), McKay and Patton (8), and Morris and Bowers (9) reported mean protein intakes equal to or exceeding the standard.

Mean daily calcium intakes were above the standard of 0.68 gm. per 70 kg. in studies of Coons and Schiefelbusch (4), Kramer *et al.* (5), Wheeler and Mallay (7), and Morris and Bowers (9).

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In contrast to these findings, Latzke's (6) results with calcium fell 9.8 per cent below the standard.

Intakes of phosphorus were more or less low as reported by Coons and Schiefelbusch (4), Latzke (6), and Morris and Bowers (9), whereas Kramer *et al.* (5), and Wheeler and Mallay (7) found them to be adequate or above.

Such results suggest that often the amounts of nitrogen, calcium, and phosphorus eaten by college women are below the Sherman standard, even though more generous quantities may be believed desirable.

This study presents additional information on the nitrogen, calcium, and phosphorus intakes of women of college age. By pooling the results of such investigations it should eventually be possible to establish early-adult or postpubescent standards for the food intakes of women of this group.

TABLE 1

*Personal data*

| SUBJECT | AGE* | WEIGHT† | HEIGHT | ACTIVITY‡ | BASAL METABOLISM§ | YEAR IN COLLEGE | MILK CUPS¶ | SUBJECT | AGE* | WEIGHT† | HEIGHT | ACTIVITY‡ | BASAL METABOLISM§ | YEAR IN COLLEGE | MILK CUPS¶ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kansas | | | | | | | | Ohio | | | | | | | |
| | *yr.* | *kg.* | *cm.* | | | | | | *yr.* | *kg.* | *cm.* | | | | |
| A. | 25 | 48.3 | 147 | M | −7.0 | 4 | 0.8 | D. M. | 18 | 62.5 | 167 | M | −19.2 | 1 | 1.1 |
| L. | 24 | 51.3 | 159 | M | −7.5 | 4 | 0.9 | E. M. | 20 | 67.9 | 168 | M | −7.8 | 1 | 1.1 |
| Le. | 20 | 56.0 | 165 | M | −5.8 | 2 | 1.3 | N. W. | 17 | 66.8 | 174 | M | −19.7 | 1 | 2.6 |
| R. | 20 | 63.9 | 167 | M | −12.3 | 2 | 1.5 | V. W. | 18 | 85.4 | 174 | M | −16.0 | 1 | 1.2 |
| Lu. | 22 | 57.7 | 168 | M | −8.2 | 3 | 1.4 | I | 23 | 56.0 | 167 | M | −7.5 | 4 | 0.0 |
| M. | 19 | 52.4 | 160 | M | −6.7 | 1 | 1.1 | II | 22 | 41.0 | 162 | M | −8.2 | 4 | 2.0 |
| R. H. | 19 | 41.1 | 158 | M | −3.1 | 3 | 6.1 | III | 21 | 49.0 | 161 | M | −4.5 | 4 | 1.5 |
| L. M. R. | 33 | 71.0 | 159 | S | +0.3 | 5 | 2.1 | IV | 21 | 49.0 | 153 | M | +0.1 | 4 | 2.6 |
| M. F. D. | 22 | 63.6 | 167 | M | −9.1 | 4 | 1.3 | V | 20 | 54.0 | 154 | M | −3.0 | 2 | 0.2 |
| O. K. | 23 | 46.5 | 157 | S | −8.4 | 4 | 2.8 | VI | 19 | 61.0 | 164 | M | −5.3 | 2 | 0.7 |
| O. M. | 17 | 67.3 | 179 | A | −15.6 | 1 | 0.6 | VII | 19 | 67.0 | 173 | M | −10.6 | 2 | 0.1 |
| B. W. | 17 | 56.0 | 168 | M | −3.2 | 1 | 0.3 | VIII | 19 | 56.0 | 163 | M | −9.1 | 1 | 2.2 |
| | | | | | | | | IX | 19 | 57.0 | 164 | M | −10.3 | 2 | 2.0 |
| | | | | | | | | X | 19 | 43.0 | 155 | M | −18.1 | 2 | 0.9 |
| | | | | | | | | XI | 18 | 49.0 | 168 | M | −16.4 | 1 | 0.1 |
| Mean | 22 | 56.3 | 163 | M | −7.2 | 2.8 | 1.7 | Mean | 19 | 57.6 | 164 | M | −10.4 | 2.1 | 1.2 |

* To nearest birthday.

† Mean for period of study.

‡ M = moderate activity; S = sedentary; A = active.

§ Aub-Du Bois standard as modified by Boothby and Sandiford.

¶ Mean daily intake.

## PROCEDURE

The subjects were 27 college women ranging from 17–33 years of age, 41.0–85.4 kg. in weight, and 147–179 cm. in height (table 1). Medical examinations, including basal metabolism tests, in-

dicated all were normal physically. Twelve of the students lived in Kansas and 15 in Ohio. Only 4 of the 15 Ohio subjects were used for the calcium and phosphorus studies. The entire group from the two states was composed of 9 freshmen, 7 sophomores, 2 juniors, 8 seniors, and 1 graduate student. All but one were majoring in home economics. All had had one or more college courses in foods and nutrition which undoubtedly influenced food intakes in varying degrees. For the most part, the subjects were regarded as moderately active although activity ranged from active to sedentary.

The diets were freely chosen, each subject eating when and as she desired. The only restrictions were that all food eaten be weighed and a sample preserved for analysis. The students followed their usual routines which were rarely disturbed and seldom changed.

The length of the study varied, being 1 week each for 18 subjects, 2 weeks for 2 subjects, 4 weeks for 4 subjects, and 8 weeks for 6 subjects. With few exceptions the food for Kansas subjects was weighed and sampled by an investigator. The Ohio subjects weighed their own food under careful supervision. A reliable Harvard trip or Hanson scale was used.

Aliquots of the foods eaten by a subject were combined for each period of 7 days. The composite samples for Kansas were made into an acid digest (10); those for Ohio were dried to approximately constant weight at 60 degrees C., then pulverized and sifted.

Nitrogen was determined by a macro-procedure using the Kjeldahl-Gunning method (11). Calcium analyses were made either by the McCrudden or a modified A.O.A.C. macro-method (11). Phosphorus was determined colorimetrically according to Fiske and Subbarow (12) or gravimetrically as magnesium pyrophosphate involving the Neumann procedure (13) as modified by Lundell and Hoffman (14) and McCandless and Burton (15).

## RESULTS

Nitrogen, calcium, and phosphorus intakes are shown in table 2. They varied greatly with subjects, nitrogen ranging from a daily mean low of 109.1 mg. per kg. for E. M. of Ohio to a high of 386.4 mg. for R. H. of Kansas. Variations in calcium and phosphorus intakes for different subjects were even greater, ranging from 10.1–56.5 and 11.1–51.7 mg. per kg., respectively.

Differences in intakes between subjects (inter-individual) compared with differences between periods for the same subject (intra-individual), as determined by analysis of variance, are highly significant ($P \leq 0.01$) for nitrogen, calcium, and phosphorus. Variations between subjects were therefore greater than the variations from period to period for the same subject.

Differences in intakes of the subjects from the two states are evident (tables 2 and 3). Only with the nitrogen data did the number of subjects permit the statistical determination of the effect of location upon food intakes. An analysis of variance indicated that state differences for nitrogen were highly significant. It is probable also that differences in the individual subjects played an important part in these variations.

The mean daily intakes per 70 kg. for protein, calcium, and phosphorus were considerably higher for Kansas than

for Ohio subjects (table 3). Differences were much less marked for protein than for calcium and phosphorus as might be expected since the number of subjects was more nearly equal. If subject R. H. of Kansas is excluded because of her unusually high intakes of all three nutrients, the difference becomes negligible for protein (74:76). In this case 15 Ohio subjects were compared with 11

TABLE 2

*Mean daily intakes of nitrogen, calcium, and phosphorus*

| SUBJECT | WEIGHT | WEEK | MG./KG./DAY | | | SUBJECT | WEIGHT | WEEK | MG./KG./DAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Nitrogen | Calcium | Phosphorus | | | | Nitrogen | Calcium | Phosphorus |
| | | | | | Kansas | | | | | | |
| | *kg.* | | | | | | *kg.* | | | | |
| A. | 48.7 | 1 | 178.1 | 12.1 | 20.6 | L. | 51.5 | 1 | 159.0 | 14.3 | 18.1 |
| | 48.9 | 2 | 163.6 | 9.8 | 19.7 | | 51.3 | 2 | 202.8 | 12.4 | 21.5 |
| | 48.7 | 3 | 198.8 | 11.8 | 20.2 | | 51.7 | 3 | 202.8 | 12.7 | 21.0 |
| | 48.4 | 4 | 180.1 | 12.1 | 17.9 | | 51.8 | 4 | 196.8 | 12.9 | 20.2 |
| | 48.2 | 5 | 171.8 | 17.2 | 19.7 | | 51.2 | 5 | 196.8 | 12.3 | 17.9 |
| | 48.1 | 6 | 184.3 | 14.9 | 24.9 | | 50.8 | 6 | 196.8 | 12.1 | 23.5 |
| | 47.7 | 7 | 194.6 | 13.2 | 23.1 | | 51.3 | 7 | 216.7 | 12.9 | 22.6 |
| | 47.5 | 8 | 167.7 | 12.3 | 19.0 | | 51.0 | 8 | 196.8 | 12.1 | 20.9 |
| Mean | 48.3 | | 179.9 | 12.9 | 20.6 | Mean | 51.3 | | 196.1 | 12.7 | 20.7 |
| Le. | 56.5 | 1 | 222.8 | 18.3 | 31.8 | R. | 64.9 | 1 | 180.3 | 16.9 | 26.3 |
| | 56.4 | 2 | 204.4 | 19.6 | 22.7 | | 64.7 | 2 | 151.8 | 14.4 | 18.4 |
| | 55.9 | 3 | 222.9 | 15.9 | 22.1 | | 63.9 | 3 | 170.1 | 15.3 | 20.0 |
| | 56.1 | 4 | 185.6 | 15.8 | 21.1 | | 64.0 | 4 | 169.1 | 16.8 | 20.1 |
| | 56.1 | 5 | 201.6 | 19.6 | 24.8 | | 63.8 | 5 | 190.8 | 14.1 | 19.7 |
| | 55.8 | 6 | 186.7 | 16.7 | 21.3 | | 63.4 | 6 | 153.3 | 13.2 | 17.5 |
| | 55.6 | 7 | 185.4 | 15.3 | 21.3 | | 63.4 | 7 | 166.7 | 17.2 | 19.9 |
| | 55.9 | 8 | 220.9 | 19.7 | 25.7 | | 63.4 | 8 | 186.0 | 16.1 | 22.4 |
| Mean | 56.0 | | 203.8 | 17.6 | 23.9 | Mean | 63.9 | | 171.0 | 15.5 | 20.5 |
| Lu. | 58.8 | 1 | 180.6 | 18.0 | 26.0 | M. | 52.4 | 1 | 241.0 | 22.1 | 32.2 |
| | 58.0 | 2 | 190.2 | 18.2 | 22.8 | | 52.6 | 2 | 170.2 | 15.4 | 16.0 |
| | 58.2 | 3 | 191.4 | 17.2 | 22.7 | | 52.3 | 3 | 191.2 | 18.6 | 20.5 |
| | 57.8 | 4 | 199.8 | 16.9 | 22.2 | | 51.8 | 4 | 183.6 | 14.2 | 18.5 |
| | 57.3 | 5 | 204.4 | 16.9 | 23.3 | | 52.3 | 5 | 211.5 | 19.3 | 26.4 |
| | 57.4 | 6 | 179.4 | 18.3 | 21.2 | | 52.2 | 6 | 194.8 | 15.8 | 21.1 |
| | 57.4 | 7 | 184.1 | 15.5 | 20.9 | | 52.6 | 7 | 188.2 | 14.6 | 20.9 |
| | 57.0 | 8 | 203.7 | 17.7 | 24.4 | | 52.8 | 8 | 187.9 | 19.8 | 21.8 |
| Mean | 57.7 | | 191.7 | 17.3 | 22.9 | Mean | 52.4 | | 196.1 | 17.5 | 22.2 |
| R. H. | 41.1 | 1 | 386.4 | 56.5 | 51.7 | O. K. | 46.5 | 1 | 226.2 | 26.2 | 28.0 |
| L. M. R. | 71.0 | 1 | 113.5 | 14.6 | 22.2 | O. M. | 67.3 | 1 | 212.5 | 12.9 | 23.6 |
| M. F. D. | 63.6 | 1 | 193.1 | 15.8 | 22.3 | B. W. | 56.0 | 1 | 157.7 | 10.7 | 19.3 |

TABLE 2—*Concluded*

| SUBJECT | WEIGHT | WEEK | MG./KG./DAY | | | SUBJECT | WEIGHT | WEEK | MG./KG./DAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Nitrogen | Calcium | Phosphorus | | | | Nitrogen | Calcium | Phosphorus |
| | | | | | Ohio | | | | | | |
| | *kg.* | | | | | | *kg.* | | | | |
| D. M. | 62.5 | 1 | 135.2 | 12.8 | 14.3 | E. M. | 67.9 | 1 | 136.8 | 11.1 | 12.9 |
| | 62.5 | 2 | 128.2 | 12.2 | 14.1 | | 67.9 | 2 | 117.8 | 9.9 | 13.0 |
| | 62.5 | 3 | 129.6 | 12.1 | 15.6 | | 67.9 | 3 | 124.2 | 12.7 | 15.2 |
| | 62.5 | 4 | 112.8 | 11.1 | 12.8 | | 67.9 | 4 | 109.1 | 11.5 | 13.3 |
| Mean | 62.5 | | 126.5 | 12.1 | 14.2 | Mean | 67.9 | | 122.1 | 11.3 | 13.6 |
| N. W. | 66.8 | 1 | 160.8 | 17.6 | 18.3 | V. W. | 85.4 | 1 | 121.9 | 11.3 | 15.5 |
| | 66.8 | 2 | 163.2 | 14.2 | 18.0 | | 85.4 | 2 | 100.9 | 10.1 | 11.3 |
| Mean | 66.8 | | 162.0 | 15.9 | 18.2 | Mean | 85.4 | | 111.4 | 10.7 | 13.4 |
| I | 56 | 1 | 117.3 | | | VII | 67 | 1 | 174.5 | | |
| II | 41 | 1 | 214.1 | | | VIII | 56 | 1 | 206.4 | | |
| III | 49 | 1 | 192.0 | | | IX | 57 | 1 | 196.1 | | |
| IV | 49 | 1 | 270.2 | | | X | 43 | 1 | 175.8 | | |
| V | 54 | 1 | 157.6 | | | XI | 49 | 1 | 185.7 | | |
| VI | 61 | 1 | 152.5 | | | | | | | | |

from Kansas. More of the Ohio than of the Kansas subjects were deficient in the nutrients studied. A possible explanation is that Kansas subjects were slightly older and somewhat more advanced in their study of foods, as indicated by the mean college classification for the two groups (table 1). The subjects in both states were undoubtedly more or less food-conscious because of their major in home economics. The findings, therefore, may be criticized as typical only of that group of college women who have better than average eating habits, rather than of an all-college group. However, the results may be regarded as representative of a steadily increasing proportion of college women.

Mean daily milk consumption shown in table 1 included cream and milk used as such as well as that in any food consisting largely of milk. In only 3 of the 12 Kansas and 5 of the 15 Ohio subjects, or 25 and 35 per cent of each group, was the adult standard of one pint per day reached or surpassed. The mean per capita intake for the two groups was 1.7 and 1.5 cups per day, respectively, but the median was only 1.3 and 1.1 cups. The extremes were 6.1 cups per day for subject R. H. and 5.7 gm. for subject I. Considerable milk, not reported as such, was used in cooking. Each of the following subjects, Le., R., Lu., and M., all of whom ate at the same table, bought a pint of milk a day, but the milk was not always equally distributed among the 4 subjects. Cheese was used in fair amounts by all subjects. Subjects A. and L. ate a great many carrots which helped to raise their calcium intakes.

Subjects using the most milk had the highest calcium intakes and subject B. W., who drank the least milk in the group studied for calcium, was lowest in calcium intake. However, she was only slightly lower in this respect than subjects E. M. and V. W. who drank considerably more milk than she.

TABLE 3

*Distribution of subjects according to mean daily intakes of protein,* calcium, and phosphorus calculated to 70 kg. body weight*

| STATE | PROTEIN | | CALCIUM | | PHOSPHORUS | |
|---|---|---|---|---|---|---|
| | Subject | Gm. per day | Subject | Gm. per day | Subject | Gm. per day |
| Kansas | R. H. | 168 | R. H. | 3.96 | R. H. | 3.62 |
| | O. K. | 98 | O. K. | 1.83 | O. K. | 1.96 |
| | O. M. | 91 | Le. | 1.23 | Le. | 1.67 |
| | Le. | 91 | M. | 1.23 | O. M. | 1.65 |
| | M. F. D. | 84 | Lu. | 1.21 | Lu. | 1.60 |
| | M. | 84 | M. F. D. | 1.11 | M. F. D. | 1.56 |
| | Lu. | 84 | R. | 1.09 | L. M. R. | 1.55 |
| | L. | 84 | L. M. R. | 1.02 | M. | 1.55 |
| | A. | 77 | O. M. | 0.90 | L. | 1.45 |
| | R. | 77 | A. | 0.90 | A. | 1.44 |
| | B. W. | 70 | L. | 0.89 | R. | 1.44 |
| | | | B. W. | 0.75 | B. W. | 1.35 |
| Sherman standard..... | | 70 | | 0.68 | | 1.32 |
| | L. M. R. | 49 | | | | |
| Mean..... | | 88 | | 1.34 | | 1.74 |
| Ohio | IV | 118 | | | | |
| | II | 94 | | | | |
| | VIII | 90 | | | | |
| | IX | 86 | | | | |
| | III | 84 | | | | |
| | XI | 81 | | | | |
| | X | 77 | N. W. | 1.12 | | |
| | VII | 76 | D. M. | 0.84 | | |
| | V | 70 | E. M. | 0.77 | | |
| | N. W. | 70 | V. W. | 0.77 | | |
| Sherman standard..... | | 70 | | 0.68 | | 1.32 |
| | VI | 67 | | | N. W. | 1.26 |
| | D. M. | 57 | | | D. M. | 0.98 |
| | I | 51 | | | E. M. | 0.98 |
| | V. W. | 48 | | | V. W. | 0.91 |
| | E. M. | 47 | | | | |
| Mean..... | | 74 | | 0.88 | | 1.03 |

* N × 6.25.

The results with several subjects appear to refute the statement that it is difficult to bring the level of calcium in the diet up to the Sherman standard without free use of milk and milk products. Also, contrary to the idea that calcium is one of the dietary essentials most often low in American diets, in these studies none of the 16 subjects studied for calcium intakes had an intake below the Sherman adult standard (table 3), whereas several had low intakes for both nitrogen and phosphorus. However, in unpublished balance experiments (Kansas State College) some of these same subjects were in occasional negative calcium balance on calcium intakes as high as these.

The Kansas students were somewhat older than those of the Ohio group (table 1). The oldest, L. M. R. of Kansas, 33 years of age, was undoubtedly fully grown, and subjects A. and L., also of Kansas, were probably mature. Their mean intakes calculated to 70 kg. body weight (table 3) were in all cases considerably below the means for the entire Kansas group but, with the exception of L. M. R. for protein, all three had intakes above the mean for the younger Ohio group. Apparently the older subjects tended to use smaller amounts of nitrogen, calcium, and phosphorus, but the difference in age did not explain the differences between Kansas and Ohio intakes. However, in the Kansas group only one younger subject (B. W.) had lower intakes than these older subjects for calcium and phosphorus and, if L. M. R. is excepted, for protein.

SUMMARY

Nitrogen intakes of 12 Kansas and 15 Ohio college women, and calcium and phosphorus intakes for 12 Kansans and 4 Ohioans were determined from analysis of aliquots of food eaten. The subjects ate freely chosen diets over periods varying from 1–8 consecutive weeks.

Differences between subjects in intakes of nitrogen, calcium, and phosphorus were significantly greater than the differences between periods for the same subject.

With one exception for nitrogen, the Kansas diets supplied nitrogen, calcium, and phosphorus in amounts above the Sherman standard.

The 4 Ohio subjects studied for phosphorus ate diets lower in this nutrient than the Sherman standard and 5 of the 15 subjects for the nitrogen study had a lower protein intake.

No subject from either state had a mean calcium intake below the Sherman adult standard.

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## Diet and Osteoporosis

We do not have any definite convictions as to what part diet may or may not play in the causation of osteoporosis. Diet, of course, has everything to do with osteomalacia, but that is an entirely different disease. There are at least three ways in which diet might be thought to play a part. Some investigators apparently believe that the increased availability of calcium and phosphorus in the system as the result of a diet rich in these substances is a stimulus to osteoblastic activity and that a decreased availability leads to decreased osteoblastic activity. As far as we are aware, there is no evidence to support this point of view. If the amount of calcium and phosphorus in the diet has any effect on the causation of osteoporosis, it seems unlikely that it is by such a mechanism. A second possibility is that an increased availability of calcium and phosphorus in the system because of the diet would decrease the amount of resorption of bone. If such were the case, any primary hypofunction of the osteoblasts would be partially offset by the decreased resorption and the patient would be benefited. Such a hypothesis would explain the apparently beneficial effect obtained by some investigators in the treatment of patients with osteoporosis with diets high in calcium and phosphorus and large amounts of vitamin D. We favor the second possibility; it is in keeping with the concept which has been frequently emphasized from this clinic that a diet high in calcium and phosphates prevents the decalcification due to hyperparathyroidism. Finally, as a third possibility, a diet inadequate in protein might lead to a negative nitrogen balance, and this in turn might make it impossible for the osteoblasts to lay down the necessary organic matrix, which is the first step in the formation of bone. We believe that some of the osteopathies which have been attributed to a lack of calcium and phosphorus in the diet are really due to protein starvation.—*Fuller, A., Smith, P. H., and Richardson, A. M., Postmenopausal osteoporosis, its clinical features, J. A. M. A., 116: 2465, 1941.*

# THE DIET IN ADDISON'S DISEASE

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DIET plays an important role in the treatment of Addison's disease. Before the introduction of modern hormone therapy, adrenal cortical insufficiency, characterized by loss of sodium chloride, dehydration, low blood pressure, and eventual circulatory collapse, was considered inevitably fatal. Now the outlook for patients with Addison's disease is brighter.

During the period from 1927 to 1933 (1) extracts of the adrenal cortex were observed to have a beneficial effect upon patients with adrenal insufficiency; however, the cost of adequate therapy for a moderately severe case was almost prohibitive. In 1933 Loeb (2) and Harrop (3) independently demonstrated the value of sodium salts in the treatment of these patients. Wilder and others (4) in 1937 not only verified this but demonstrated the beneficial effects of a diet low in potassium. Although these measures greatly benefited patients with Addison's disease, few were able to resume normal activity.

Treatment of the disease was revolutionized when Steiger and Reichstein (5) in 1937 synthesized desoxycorticosterone acetate, often referred to as the "sodium retaining" factor of the adrenal cortex. Two years later Thorn, Howard, and Emerson (6) demonstrated its ability to maintain normal electrolyte balance in their Addisonian patients. Further studies by Thorn and co-workers have indicated the need for a high carbohydrate diet with this form of treatment.

It is the purpose of this paper to discuss the theory and practical aspects of the diet in Addison's disease.

## HORMONE AND SALT THERAPY

The present method of treatment (7) consists of giving intramuscular injections of Percorten (desoxycorticosterone acetate in oil) often supplemented by salt. Moderate steady weight gain, return of serum electrolytes to normal, increased strength and sense of well-being, and often a rise in blood pressure are indications of adequate therapy over a period of six to eight weeks. At this time, if it is desired, pellets of the pure crystalline material may be implanted subcutaneously in the infrascapular region. The majority of patients thus treated have been restored to normal activity provided hormone therapy is continued by means of injections of Percorten or reimplantation of pellets after twelve months. Other methods of administering this synthetic hormone are being investigated.

Today the Addisonian does not need a low-potassium diet. According to Thorn (6), "There appears to be no indication for reducing the potassium content of the diet of patients adequately treated with desoxycorticosterone acetate." Because of the potency of this substance in promoting sodium retention and because of the danger of overdosage resulting in edema and cardiac dilatation,

[1] The writer wishes to express appreciation to Dr. George W. Thorn for his advice and criticism in the preparation of this paper.

Wilder (8) observes that "an allowance of potassium which is dangerous in the extreme for the patient who is unsupported with cortical hormone is what is needed by the same patient receiving desoxycorticosterone acetate." He recommends a normal intake of potassium for these patients.

In some instances treatment with Percorten is supplemented by administration of small amounts of adrenal cortical extract made from natural sources.

The salt content of the diet may be normal. In some patients diet salt alone is sufficient to maintain sodium balance. If, however, additional salt is necessary, enteric-coated tablets may be given; digestive disturbances seldom result if the tablets are taken with meals.

### CARBOHYDRATE METABOLISM

Now that control of the electrolyte balance has decreased fatality, it is possible to study the carbohydrate metabolism in patients with Addison's disease.

As early as 1910 the frequent occurrence of hypoglycemic reactions and an increase in the glucose tolerance were observed in patients with Addison's disease. Some patients report a craving for carbohydrate foods and a habit of eating between meals to allay feelings of nervousness and weakness. Experimental work has conclusively shown that the cortical hormone does influence carbohydrate metabolism.

High incidence of a disturbed carbohydrate metabolism was observed by Thorn *et al.* (9) in a group of patients with Addison's disease. The flat oral glucose tolerance curve found in the untreated patient reached a normal peak after treatment, indicating improved absorption of glucose. However, the specific "carbohydrate defect" resulting from adrenal cortical insufficiency, as revealed by the intravenous glucose tolerance, was not influenced by desoxycorticosterone therapy. Soffer, Engel, and Oppenheimer (10) also observed no effect upon the carbohydrate metabolism from such therapy.

The intravenous glucose tolerance tests on the patients (9) showed a low fasting blood sugar and symptoms of hypoglycemia frequently developed two to three hours after the administration of glucose. However, this marked disturbance was not observed in all patients, nor did the normal subjects have any hypoglycemic symptoms four hours after glucose administration. Patients with the "carbohydrate defect" also showed a decreased threshold at which hypoglycemic symptoms appeared.

The respiratory quotient, the total urinary nitrogen excretion, and the blood glucose values of five patients and four normal subjects were followed during the intravenous glucose tolerance tests. Analysis of these figures suggests that the patient with adrenal insufficiency burns carbohydrate rapidly and almost exclusively (as shown by the high R.Q.) and that he is not able to maintain his blood sugar level by utilization of body protein (as shown by a low blood sugar and a low urinary nitrogen).

Because of this increased carbohydrate utilization, the patient's stores of glycogen are soon depleted and periods of starvation as short as five to six hours may be associated with hypoglycemia. Since proteins (endogenous or exogenous) cannot be readily converted into glucose for maintenance of the carbohydrate stores, it is obvious that frequent feedings of carbohydrate must be given if

the hypoglycemic episodes are to be avoided.

The inability of the patient treated with desoxycorticosterone acetate to form glucose from non-carbohydrate sources was strikingly demonstrated in one patient who went into severe hypoglycemic shock on the evening of the third day on a ketogenic diet of adequate caloric content.

### THE DIET

A diet high in readily available carbohydrate is of therapeutic value to the patient with Addison's disease. The carbohydrate reserve can be maintained and it will not be necessary to depend upon non-carbohydrate sources of glucose to support a normal blood sugar.

To give ample carbohydrate to the untreated person with Addison's disease is a real problem for the dietitian. The patient's appetite is fickle, he is subject to frequent attacks of nausea and vomiting and is often distressed by flatulence and distention. Patience and careful planning, therefore, are necessary if we are to succeed in getting him to eat.

The feedings must be frequent because of inefficient absorption of food (as shown by the flat oral glucose tolerance curve). Occasionally it is necessary to give feedings at midnight and 4 a.m. to supply enough carbohydrate to maintain the patient's carbohydrate reserve.

An increased appetite and greater taste appreciation are some of the first signs of improvement in the patient. This is accompanied by an improved disposition. With adequate treatment the gastro-intestinal disturbances disappear, unless there is some specific disorder which antedated the onset of the Addison's disease. It is well, however, to avoid foods which are difficult to digest or which the patient dislikes since maximum digestibility and absorption of the food are essential.

In planning the high carbohydrate diet for the patient with Addison's disease it is wise to keep in mind his general condition and ability to eat. Rather than attempting to give 500–600 gm. carbohydrate to these patients, it is better to give them an adequate diet with the carbohydrate high in proportion to their total food intake. Seven to eight grams carbohydrate per kilogram body weight provides adequate carbohydrate for these patients; more is desirable provided it does not displace other essential foods. The protein should be about 1.5–2 gm. per kilogram body weight with sufficient easily digested fat to make the diet palatable and to increase the patient's caloric intake.

When the patient is able to eat three regular meals a day, it is still advisable to give intermediate nourishments. It is essential that he have a bedtime feeding about 9 or 10 p.m. This feeding should consist of 25–50 gm. carbohydrate, preferably in a form which is slowly digested and absorbed. Popular and satisfactory combinations are milk and cookies, fruit juice and a sandwich, canned fruit and cookies, or plain cake and ice cream. By thus breaking the usual 15-hour fast, early morning hypoglycemia may be prevented.

It is of equal importance that the patient does not omit a meal; if he refuses a meal, fruit juice, ginger-ale, or some form of carbohydrate must be substituted. If the patient refuses all food, or is unable to retain it, the doctor should be notified for if the impairment of carbohydrate metabolism is marked, it may be necessary to give the patient

an infusion of glucose to prevent hypoglycemic shock.

### GENERAL CONSIDERATIONS

It is not yet known if the requirement for thiamin or other factors of the B-complex is increased in Addison's disease. For general therapeutic purposes, however, additional vitamin B is advisable.

A patient with Addison's disease who is adequately treated with desoxycorticosterone acetate can usually be restored to good health and normal activity. It is essential that his high carbohydrate diet be adequate in every respect and that he observes the rules of good hygiene which should be taught along with instruction in diet. The patient must be impressed with the fact that he cannot afford to be careless, and that conscientious observance of these instructions and of other rules which his doctor may impose, is essential to his well-being.

The hope for the future is that the carbohydrate regulating factor of the adrenal cortex (which is now known) will be synthesized and when combined with desoxycorticosterone acetate will result in a more satisfactory treatment of Addison's disease.

### SUMMARY

A normal potassium intake is recommended for patients with Addison's disease who are treated with desoxycorticosterone acetate.

An adequate diet high in readily available carbohydrate (at least 7–8 gm. per kilogram body weight) is necessary for the patient with Addison's disease.

Intermediate nourishments are advisable and a bedtime feeding is essential for these patients.

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# MENU MAKING AND FOOD PREPARATION IN THE HOSPITAL

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MANY figures of speech have been used to emphasize the importance of the menu in large group feeding. It has been described as the key to the food department, the hub around which all other food activities revolve, or the mirror that reflects the standards of the institution. Food administrators agree that the menu is a guiding and controlling factor in the operation of the department, also that it, in turn, is affected by many other factors. The predominance of inexpensive foods, or the frequent use of costly items is controlled by the limitations of the food budget. The age, sex, activity and physical condition of the groups served receive major consideration in planning the menu to meet nutritional requirements. The size of the group, their food habits, likes and dislikes, also influence the content of the menu. Among other pertinent factors are climate, seasonal changes, market conditions, refrigeration and storage facilities, the number and ability of employees engaged in food preparation and service, the suitability and adequacy of equipment, the procurement of supplies, use of stocks on hand and left-over foods.

Even though the menu is planned with all the foregoing in mind, it will be acceptable to the patrons only if the dietitian has food imagination. This attribute enables her to visualize the patient's tray or the dining room service and thus be assured that the combinations she plans meet accepted standards when served, as to consistency, flavor, appearance, variety and temperature. She recognizes the importance of serving favorite, even though expensive, dishes occasionally and of balancing the budget with cheaper ones at proper times. A steak dinner may well end with bread pudding, while one with stew for the main dish may need cherry pie or ice cream for dessert.

In the average hospital, this carefully planned menu is designated as the general or regular diet, and serves as a foundation for the development of such special diets as may be required, also for the furnishing of meals to different groups of hospital personnel. The policy of the Veterans Administration requires that the same menu be served to personnel as to patients on regular diet, with adjustments in quantities to meet individual energy needs. This procedure is based on the assumption that the requirements of those coming in daily contact with illness are similar to the nutritional needs of convalescents. Service instructions provide that this regular diet shall be planned with the special diet requirements of the patients clearly in mind. It must furnish a variety of foods, with special attention to a liberal supply of milk, eggs, good quality of meats, fresh fruits and vegetables. The required daily allowance of nutrients in this diet to meet the needs of patients and personnel includes a per capita range of from 2500–3500 calories, 10–15 per cent as protein, 50–60 per cent as carbohydrate, and 30–40 per cent as fat; and iron .008–.15

gm., calcium 0.45–0.9 gm., phosphorus 0.88–1.5 gm., vitamin A 2000–8000 I.U., vitamin $B_1$ (thiamin) 200–800 I.U., and vitamin C 400–1600 I.U. It is expected that this requirement will be revised in conformity with the "Recommended Daily Allowances for Specific Nutrients" adopted by the National Nutrition Conference in May 1941, with particular reference to the inclusion of other factors of the vitamin B-complex in addition to thiamin.

As part of the program for better nutrition, enriched flour according to government standards is now being purchased for use at all Veterans Administration hospitals having their own bakeries, while those buying bread have authority to procure enriched varieties, insofar as they are available in each locality. Careful attention is paid to the amounts of each class of food represented in the diet, with particular reference to such major items as fruits, vegetables, meats, eggs and milk (including cheese, cream and ice cream). Records of quantities purchased are submitted to the Central Office monthly, along with other reports on food supplies.

To ensure variety and avoid repetition, a tentative menu is planned over a period of three or four weeks, or even for the entire quarter, especially at the larger hospitals operating farms, where the distribution of available pork, poultry, fruits and vegetables raised at the station throughout the period must be taken into account. The regular diet menu in final form covering one week's meals is submitted to the Chief Medical Officer for approval before use. At the end of each month copies of the menus with corrections in ink to show any substitutions found necessary, are forwarded to the Central Office for check and comparative study. In addition, at stated intervals complete analyses of daily menus are likewise prepared and forwarded to the headquarters of the organization. Analysis of the following sample day's meals which were served on June 9 to regular diet patients and personnel in a general medical and surgical facility located in the Southwest, shows a caloric content of between 2500 and 3000 calories with approximately 12 per cent as protein and the other nutritional essentials within required ranges.

BREAKFAST

Orange
Wheatena with Sugar and Cream
Boiled Egg
Toast and Butter
Coffee with Sugar and Cream

DINNER

Broiled Steak
Parslied Buttered Potatoes
Broccoli with Sauce
Lettuce with French Dressing
Bread and Butter
Ice Cream with Chocolate Sauce
Sponge Cake
Milk or Coffee with Sugar and Cream

SUPPER

Consommé with Rice, Crackers
Vegetable Plate: Stuffed Baked Potato, Carrots, Cauliflower, Peas, Sliced Tomato, Cottage Cheese
Biscuits and Honey
Rhubarb Sauce
Sugar Cookies

It has been said that good menu planning eliminates left-overs. For every dish included in the menu, some dietitians report that they plan a way to use the left-overs. In the hospitals of this service, emphasis is placed on the prompt and efficient use of any items on

hand after meals, to prevent waste. Food remaining in conveyors or steam-table containers is returned to the central kitchen for inspection by dietitian and cooks, so plans may be made for proper disposition not later than the following day.

Since there are three distinct types of hospitals in this service and dietitians are subject to transfer, it is important that they become familiar with the food needs of each. In the tuberculosis group where patients undergo long periods of hospitalization and are permitted a minimum of exercise, the dietitians try to tempt fluctuating appetites with a variety of fresh fruits and vegetables, the use of individual cuts of meats, crisp salads, relishes and garnishes, with special emphasis on attractive servings.

In the neuropsychiatric group also, the period of hospitalization may be long but the patients can enjoy greater activity and therefore tend to have healthy appetites. Consequently, simple nourishing foods, the creamed and scalloped dishes, boned meats, stews and gravies that often prove unpopular in a tuberculosis hospital are well liked by the majority in a neuropsychiatric institution. The acceptability of food items by both patients and personnel in all hospitals is carefully noted and items that are not popular are served rarely, if at all.

The operation of farm activities at most of the neuropsychiatric facilities as a form of occupational therapy for some of the patients presents an additional factor to be considered by the dietitian in menu making. Effort is made to utilize fully the farm products as fast as they reach maturity without undesirable repetition on the menu. When a surplus results in spite of the careful planning of the farm superintendent and others concerned in the farm work, the dietitian must use good judgment to prevent waste of these supplies. She must be prepared to change menus with alacrity, to serve items in various ways to avoid monotony, and to can, preserve or pickle products for later use as occasion demands.

Although the menus for the general medical and surgical group may include all items popular in the other two groups of hospitals, the variety of special diets ordered as a part of the medical treatment of the patients materially affects the regular menu. Since the therapeutic diets often out-number the routine ones, it is particularly important that the dietitian in this type of hospital keep special diet requirements well in mind as she plans the basic menu. Without unnecessary deviation from the regular diet she must still provide carefully for the diabetics, the nephritics, the allergy and ulcer patients, the cardiac conditions and all the other complications for which special diets are indicated. Holiday menus receive special attention in Veterans Administration hospitals. Appropriate dishes are served and printed folders used. Often space is provided on the folder for a note and patients take advantage of the opportunity to send a holiday greeting when they mail the menu to a relative or friend.

In connection with the planning of meals for various numbers of patients and personnel in the different types of hospitals, the preparation of food assumes major proportions. It has been the experience of this service that excellent recipes are readily available for 50 or 100 servings, but adjustments are

necessary to develop recipes for larger quantities to meet the requirements of individual institutions. Since new recipes are always a boon to those engaged in food service, the large quantity recipes published in 1940 by the American Dietetic Association received a warm welcome in the Veterans Administration hospitals. A copy was provided for each hospital so the dietitians could adjust recipes and costs to local conditions and increase the variety in their menus.

In large quantity food preparation a question sometimes arises regarding the maximum size of recipes for practical use. Except perhaps in the bakery, are recipes in quantities for 2000, 2500, 3000 or more people really needed? Of course, correct information regarding the exact amount of each item required to feed a given group is essential, but is it not well to keep the recipes in practical quantities that may be prepared satisfactorily? Even in so simple a procedure as making coffee, unless the equipment is unusually efficient, it should be remembered that whether the population of the institution is 200 or 2000, only the amount that can be served while it is still palatable should be prepared at one time. The same is true of practically all large quantity food preparation. When griddle cakes are served to institution groups, fresh batches of batter are prepared at frequent intervals unless excellent refrigeration facilities are close at hand. Likewise, sauces and gravies are prepared in such quantities as can be handled easily, and custard mixes in amounts to permit quick cooling and holding in the refrigerator prior to serving. With the improved standards of vegetable and meat preparation, it is considered desirable to have smaller amounts prepared at one time for immediate serving. In the bakery where heavy machinery is available for mixing doughs and batters with sufficient rapidity to prevent deterioration, recipes in large quantities can be used satisfactorily. In most instances, however, recipes in multiples of 100 will meet the needs of the main kitchen in the larger institutions. If such recipes have been carefully tested for quality, quantity and portion yield, and are followed *exactly* by trained cooks, the finished products should be satisfactory. Frequently institutions of 1000 or more beds have more than one central kitchen with less than 1000 people fed at one time from each kitchen. If, as happens in some of these larger institutions, there are two sittings in the dining room at every meal and family-style service is used, food must be prepared six times a day instead of three, and recipes for more than 1000 may not be indicated. It is just as important that food be freshly cooked for the second as for the first sitting, and preparation timed so that the same standard of quality is maintained for each meal. When food is prepared in smaller amounts and served quickly it is more appetizing and has better food value. It may escape, too, the old condemnation that it tastes like institution food. While this type of preparation requires more effort and closer supervision, it is in line with progress in food standards, and should be the aim of every food supervisor in improving the quality of the menu.

With the ever-increasing trend toward better techniques in food preparation to preserve the food value and improve the palatability, both as to flavor and

appearance, the part of equipment in producing results and saving employees' time assumes increasing importance. Steamers are now being built with divided sections in each compartment to ensure less breaking up of such vegetables as asparagus or broccoli. Trunnion-type kettles, long popular in the bakery for cake fillings and custards, are coming into their own for cooking in the main kitchen and can be had in varying capacities from 5 or 10 gallons up. Electric juice extractors eliminate any necessity for preparation of orange juice the day before with resulting loss of vitamin C content. The new type cutters quickly turn such prosaic vegetables as carrots, beets and turnips into attractive salad material. Pea and Lima bean shellers make it possible to serve these well-liked vegetables the same day they are brought from the hospital farm or the local market. A new electric ice cream machine also makes it possible to serve a wholesome and favored dessert frequently, at half the contract price of ice cream previously purchased. A good meat slicer soon pays for itself in the increased number of slices suitable for serving from a roast, compared with that obtained when cutting by hand. Even such simple devices as a pie or cake marker that saves time and ensures uniform portions, or a hand cream dispenser that accelerates the filling of individual pitchers with a minimum of cream spilled, are well worth the purchase price.

Under normal conditions equipment that aids in improving the quality of the finished food product, in making greater variety possible, in preventing waste, or in saving labor, should receive consideration when the annual budget is set up. During the present national emergency, when equipment cannot be obtained in some of the preferred materials such as aluminum or corrosion-resisting steel, food departments that have sufficient equipment for current needs are fortunate. Those requiring replacements must give much thought to the suitability of such substitutes as are available and keep their equipment orders at the minimum essential for satisfactory preparation and service of meals.

After studying the many aspects of menu planning and food preparation, one reaches the conclusion that the real test comes when the meal is served. The old saying "The proof of the pudding is in the eating," is still true. The dietitian may not quote[1] to the patients and personnel, "Whatsoever is set before you, eat, asking no question for conscience sake," instead she will strive continually to provide food that not only ensures an adequate diet, but tastes better than that to which her patrons have been accustomed. The measure of her success will be reflected in the acceptability of the menu to those she serves.

[1] St. Paul to the Corinthians, 1, 10, 27.

# MAINTENANCE PROBLEMS IN RESIDENCE HALL HOUSEKEEPING

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EVERYONE is affected by their surroundings. Hospital dietitians, for instance, are fully aware of the confidence that is fostered by white and glistening surfaces which serve as a symbol of care and cleanliness. That orderliness in physical surroundings promotes orderliness in thinking and habits is a truism, we must admit. Residence halls wisely designed and maintained for pleasant living may serve as a strong educational force in developing the right appreciations. Housing facilities designed for active students present particular problems in maintenance. Extraordinary wear and tear is caused by students hurrying to and fro. Soil is tracked in from streets and playfields. Inexperience and careless habits frequently result in damage to furnishings and special wear that mar the finishes and weaken the structure. Adequate provision must be made for cleaning, repairing and replacing as needs arise in order to preserve the appearance of newness and freshness.

There are as many problems as there are kinds of equipment and articles of furniture in the institution. Sheets, blankets and pillow cases naturally cannot be compared with a dishwasher or a steam-jacketed kettle as to life expectancy. Although depreciation lists prepared for accountants state somewhat arbitrarily that the life expectancy for most equipment is ten years, carefully kept records in institutions show that there are many factors which will cause this to vary widely. The quality of the product purchased, the amount of supervision provided during its operation, and the care and promptness in repairing all have a decided effect on maintenance costs and length of service.

Every housekeeper, whether in a hospital, hotel or residence hall, is confronted with the question, How long will the linens last? The quality of the linen purchased will determine the number of times it can be laundered. The laundries that follow the methods recommended by the National Laundry Men's Association will give fairly uniform results; others habitually use strong caustics or employ these for stain removal which means that the fibers are weakened and the life of the linen appreciably shortened. The care that the linen receives in use, and the quality of the laundry service will affect the depreciation. Rosemary Incorporated published a *Napery Manual* in which it is estimated that napkins and tablecloths have a life-span of 20 months regular usage, that is, when washed on an average of three to five times per week or 240–400 times during the 20-month period of use. This estimate was based on returns from a questionnaire addressed to 500 clubs, hotels and restaurants. In the January 1939 *Laundry Age*, appears an estimate of the average life of hotel linen. Sheets, bath towels, tablecloths and napkins were washed 250 times, pillow cases 206 times. The average life for sheets was two and one-half years and pillow cases two years. These figures were based

on averages determined from reports of 27 hotels and should be accepted only as rough estimates because definite figures were not available.

When the Women's Residence Halls at the University of Washington were furnished, a superior grade of linen was purchased and its life estimated at three years. Sufficient table linen was purchased to permit having one set in use, one set in the laundry and one set in reserve. The table linen is changed twice a week so that in a period of one month each cloth is laundered three times. All of the table linen was replaced after three years and an estimated 100 washings. At the end of three years the sheets and pillow cases began to show signs of wear and were discarded for others. In a period of one year this linen was laundered 24 times; and during its service life, 84 times. Both the table linen and the bedding lasted three years which is in accord with generally accepted depreciation rates. Paton, in his *Accounting Handbook*, lists 25–33⅓ per cent as the depreciation rate for linen, a life of three or four years.

Paton quotes two rates of depreciation for blankets: 16⅔ and 15 per cent, or a life of 6–7 years. Our Residence Halls blankets are single blankets, approximately 85 per cent wool, and are in excellent condition. They have been in service five and one-half years and have been washed and carded four times during this period. Blankets last much longer if they are protected so that they do not become soiled readily. Most of the wear occurs in the washing.

Springs, mattresses and pillows are listed at a depreciation rate of 11.11 and 10 per cent. Crete Dahl, in *Housekeeping Management*, states that from 20–25 years is the life of the best spring-filled mattress, depending on its use and care. The life of all these items greatly depends on the durability of the coverings and the protection thus afforded.

Beauty and livableness should be major considerations in the selection of furniture and furnishings for residence halls. Durability and price are of real importance in any project that must be amortized from operating income, but they should not be the controlling factors. The depreciation rates listed by Paton are 5–10 per cent. When subdivided the rates are: dining-room 10, 8⅓, and 7 per cent; guest room 8⅓ and 6 per cent; lobby 12 and 10 per cent. This classification is usable for a residence hall since the furniture may be classified as dining-room, student-room and living-room, corresponding closely to these divisions. The service life of the furniture may be expected to approximate the estimate of from 8–10 years. The greatest wear frequently occurs on the arms, backs and cushions of the large club chairs which are the most used living-room pieces. A Seattle interior decorator gave the life of a linen-upholstered piece of furniture in a home as 5 years. Because of the nature of their use, the living-rooms in a residence hall would more nearly compare with a hotel lobby than with living-rooms in homes, and a shorter life of service can be expected.

Heavy draperies require cleaning about every two years and relining approximately twice during their lifetime. Their life expectancy is listed at 7–12 years or a depreciation rate of 8⅓–15 per cent. Care of rugs and carpets involves careful cleaning and turning. Large rugs that must be rolled up in order that

the floor may be used for dancing may be damaged by careless handling, causing breaks and wrinkles. With good care and adequate padding they should last as long or longer than the rate generally given, $16\frac{2}{3}$ per cent. Because of the difference in wearing quality between a loosely woven Axminster and a tightly woven Broadloom, this rate naturally shows a great variation, as much as from 10–50 per cent.

The walls in the student rooms at the University of Washington Residence Halls were originally finished with a water paint in pastel colors which showed soil and discoloration so readily that it was necessary to refinish the walls the second and third years. The present finish, a good quality lacquered wallpaper, makes it possible to clean the walls repeatedly and prevents discoloration from water spots. Records are being maintained on the care required for this finish and to date we have found it attractive and easy to maintain.

Dishes and glassware for an institution may be procured in several weights. Some exclusive clubs and small establishments use the light-weight, commonly thought of as "home-weight". Slightly heavier than this is the one known as the "light institution-weight" with a small rolled edge. "Institution-weight" refers to the next and heavier gradation. Although the materials used in each of these may be identical, the additional weight in the body of the china and the heavier rolled edge lend considerable strength to the institution type of dishes, reducing breakage and chipping. Because of its greater attractiveness for daily use, "light institution-weight" was selected for the Residence Halls, even though it was feared that the breakage rate would seriously affect the exchequer. The records show that the depreciation rate is higher than it would be with heavier china such as that used at the University Commons, but much lower than the rate estimated by Paton and the greater attractiveness, it is felt, compensates for the slight increase in depreciation rate.

Cleaning cost is an important item in the maintenance budget and may be analyzed in terms of its effect on materials, the amount of labor required, and the cost of supplies. The labor required and the supply expense for waxing all floors may be the same; but if the floor is of asphalt and the cleaning substance is an oil-base wax instead of a water wax, the effect on the floor may in time be sufficiently deleterious as to cause considerable expense. The asphalt tile, being oil-solvent, is softened by the use of an oil wax or a wax which is dissolved in a petroleum compound.

A variety of methods of cleaning the floors at the Women's Residence Halls were tried in an attempt to discover the method which would result in the most attractive appearance with the least damage to the surface. We are now using the following methods. To remove wax from linoleum, asphalt tile, or oak floors we wash the floor with hot soapsuds. The linoleum and asphalt floors are mopped; the oak floors are scrubbed with steel wool, a small area at a time. In every instance care is exercised to prevent the floor from becoming very wet for water under linoleum will cause it to warp and the hard wood underneath to rot. After being washed and rinsed, the floors are permitted to dry thoroughly. A liquid water-base wax is used on the linoleum and asphalt

tile, and a good grade of paste wax on the oak surfaces. The oak floors are in the dining-rooms and living-rooms where dancing is permitted. This severe wear makes it necessary to use a paste wax which forms a harder, more protective coating. The wax is applied in a very thin layer and burnished with the floor polisher until it is very hard. The cleaning and waxing is done every three months and between times it is spot-treated and all the floors are polished.

The quarry tile and cement floors need only thorough mopping with strong, hot soapsuds and a thorough rinsing to keep them in good condition. Care to remove all of the soap is essential to prevent slipperiness. Care is taken also to mop up all of the rinsing water so that it will not leave streaks and stains as it dries.

The care of the furniture is another important problem. The wood portion of furniture can be washed with warm soapsuds made with a neutral soap, taking care not to get the surface too wet; then it is dried thoroughly and polished. The upholstery on the furniture should be brushed or cleaned regularly with a vacuum-cleaner to prevent dust accumulating on the surface. Small spots should be removed with non-inflammable solvent or a moist cloth.

When it becomes necessary to clean an entire chair because of large spots or the extent of surface soiling, the material may be washed very successfully if extreme care is exercised. Before the whole piece is washed, a small portion in some inconspicuous place should be cleaned as a test. Most of the upholstered furniture in the living rooms at the Residence Halls has been washed very satisfactorily. Heavy suds made with mild soap and warm water are applied with a soft brush over small areas at a time so as to prevent undue wetting of the upholstery. The clean area is then wiped with a cloth wrung out of clear water, following which as much of the moisture as possible is removed by patting the surface with a clean dry cloth. Novelty cotton weaves, cotton corduroy, rayon and linen respond well to this treatment. Mohair and plush upholstery, however, would require different methods.

Regular care is essential in the proper maintenance of equipment. Cleaning will not need to be as severe if equipment or furnishings are not permitted to become extremely soiled. For many items the cleaning process is responsible for a large part of the wear. If linens are carefully laundered, if blankets are protected with covers or spreads so that they do not readily become soiled, or if spots are removed from furniture while they are fresh, wear on the article will not be so hard.



***Summary of Report on Physical Findings in Drafted Men***

It will be observed that many of the diagnosis groups represent defects of which a large proportion may be regarded as remediable. From this point of view, perhaps the most important conditions are: defective vision (40.8 per 1000 total drafted men), underweight (29.6), tuberculosis (24.3), defective and deficient teeth (24.2). *Summary of defects among men drafted in the World War, Pub. Health Rep., 56: 43, 1941.*

# VITAMINS—1941[1]

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TODAY we are especially concerned with the effect of slight, but long continued avitaminoses upon human health and happiness. There are many clues and some very clear-cut evidence as to the effects of such deficiencies which undoubtedly lower the health, efficiency and morale of people. Physicians are beginning to recognize the effects of suboptimal vitamin intake, but until better methods of judging nutritional status have been perfected there is no way of accurately determining the extent of such conditions.

This newer knowledge of nutrition has come principally from two types of studies: those concerned with the effect of diets almost completely devoid of a given vitamin but supposedly adequate in all other respects; and those in which physicians have used either synthetic vitamins or vitamin concentrates in the treatment of various well-defined disease entities of obscure etiology. The list of disorders in which treatment with such preparations has been effective is imposing, and includes cheilosis, Ménière's syndrome, Vincent's angina, some types of muscular dystrophy, Sydenham's chorea, paralysis agitans, and the pain associated with varicose ulcers. Work of this nature, too, has added a great deal to our understanding of multiple vitamin deficiencies.

The vitamins are commonly divided on the basis of their solubilities into two classes, fat-soluble and water-soluble. Those in the fat-soluble group known to be important in human nutrition are A, D, E, and K. The water-soluble vitamins may in turn be separated into two groups: one composed of ascorbic acid and vitamin P; the other, the B-vitamins which include the following factors whose essential role has been definitely indicated if not proved—thiamin, riboflavin, pyridoxin, pantothenic acid and nicotinic acid.

[1] Presented before the Illinois Dietetic Association, Urbana, March 8, 1941.

## THE FAT-SOLUBLE VITAMINS

*Vitamin A.* Our knowledge of the function of vitamin A has not changed appreciably during the past year. The dermatologist has, however, become more conscious of the importance of this vitamin in various skin diseases such as keratosis follicularis, "toad skin" and pityriasis rubra pilaris. All of these skin disorders are characterized by raised hardened papules of keratinized epithelial cells around or in the hair follicles. Four adults described by Peck and his colleagues (1) had suffered from Darier's disease (keratosis follicularis) for years. Apparently each of the subjects habitually ate a diet containing an adequate amount of vitamin A. However, when they were given 200,000 I.U. of the vitamin daily, the skin of all four became normal. The authors suggest that the need of such enormous doses of the vitamin probably points to inefficient absorption or utilization.

*Vitamin D.* No one questions the need of vitamin D in the prevention of rickets in children. There is, on the

other hand, no indisputable evidence that adults should include a specific source of vitamin D in the food they eat. The studies of several dermatologists on the treatment of skin disorders such as psoriasis, pemphigus and acne vulgaris with this vitamin, look promising and if beneficial results could consistently be obtained such studies would suggest that vitamin D, as such, is needed in the diet after growth ceases. Wright (2) concluded that while vitamin D is very helpful in some cases of psoriasis, it is by no means specific and given alone it does not cure acne although it is a helpful adjunct in treatment. In regard to pemphigus he believes that massive doses may at least temporarily control the lesions. Brunsting of Rochester, Minnesota, suggests in this connection that patients with skin diseases have a lowered ability to absorb or utilize vitamin D. A poor absorption would explain why massive doses of vitamin D given orally are often ineffective even though in the same patient treatment with ultraviolet light may be successful.

*Vitamin E.* No conclusive data is available which shows that vitamin E is essential for normal reproduction in human beings. The extensive work of Shute (3) indicates that this vitamin may prevent habitual abortion in women. Evidence of the role of vitamin E in human reproduction is very difficult to obtain. Work on animals has suggested that while some species, such as the goat, can reproduce on diets in which the vitamin has been destroyed, after several generations the amount of vitamin E in the tissues is definitely diminished (4). In contrast to the lack of evidence concerning the place of vitamin E in human reproduction, data which indicate that vitamin E has a definite place in the successful management of some types of muscular dystrophy are rapidly accumulating. Bicknell (5) fed 13 children suffering from myopathy one ounce of fresh dried wheat germ daily. Within 6 weeks, 12 of the children showed definite signs of improvement. Bicknell emphasized that improvement in such cases occurs very slowly. He cited the case of a man 49 years old whose right hand had been paralyzed for 6 years, whose left hand was very weak and whose legs tired easily. After 2 months treatment, the man no longer complained of the easy fatigability of his legs or the weakness of his hands. After 7 months he had almost forgotten that his left hand had ever been weak. This study was followed by a preliminary report by Wechsler (6) on the use of tocopherol in amyotrophic multiple sclerosis. This form of paralysis, which affects those of middle age, is of unknown etiology and is "relentlessly progressive." Spectacular success was reported in two patients given 6–9 mg. alpha-tocopherol acetate, a synthetic form of vitamin E, daily. A group of children (7) suffering from muscular dystrophies arising from various causes, were given 2 cc. wheat germ oil daily, together with an ample allowance of the vitamin B-complex. At first an improvement in appetite occurred, then the pain which usually followed exertion disappeared completely. The children showed a greater resistance to fatigue, and their rubbery muscles developed a normal tone. Some of the improvement noted (5, 7) may have been due to the presence of pyridoxin as well as to the vitamin E in the supplement fed. The results of Wechsler's work, however, must have

been due to vitamin E alone as he used a synthetic compound. On the other hand, Milhorat (8) states that in his experience the use of alpha-tocopherol or vitamin $B_6$ does not relieve cases of muscular dystrophy.

*Vitamin K.* Our knowledge of the chemical nature and function of vitamin K has developed more rapidly than for any other vitamin. The effects of K-avitaminosis were first described in 1929 by Dam and today we know the formula of the vitamin and something of its mode of action, while its use in several clinical conditions is well established. Cheney (9) states that the two types of disorders definitely associated with vitamin K deficiency which respond well to therapy are conditions in which there is absence of bile, such as in obstructive jaundice due to cancer, stricture, gall-stones, etc., and hemorrhagic disease of the new-born. Patients who fail to eat or retain what they eat, who have poor intestinal absorption, liver disease or are pregnant may also suffer from a lack of this vitamin. Vitamin K is known to be ineffective in treating hemophilia or purpura.

There are at least three, and possibly five naturally-occurring forms of vitamin K. In addition, many synthetic compounds, all related to the naphthoquinones, have been shown to be active. Almquist (10) suggests that the wide distribution of this vitamin may point to its role in other body processes as well as in blood clotting. In the early clinical studies bile salts were administered with vitamin K in all cases where a subnormal flow of bile into the intestine was suspected. Recently an active water-soluble compound has been developed which may be injected intravenously or given orally and because of its solubility does not require simultaneous administration of bile salts. Purely nutritional deficiencies of this vitamin may be rare as this factor is apparently synthesized in the intestine by the common putrefactive bacteria. Kark and Lozner (11) have reported increased prothrombin times in three patients with scurvy and in one with pellagra. In each the oral administration of the pure vitamin without bile salts decreased the prothrombin time. A deficiency of vitamin K might be expected in those who rarely eat green vegetables, especially if their intestinal flora tend to be predominantly acid-producing rather than putrefactive.

### THE WATER-SOLUBLE VITAMINS

*Vitamin C.* A report (12) on experimental scurvy appeared late last summer. For six months the subject ate a diet containing practically no ascorbic acid but supposedly adequate in all other nutrients. During the first four months, no changes were noted with the exception of a slight fall in weight and in basal metabolic rate accompanied by a feeling of easy fatigability. After 134 days, small, hard papules similar to those seen in vitamin A deficiency developed over the buttocks and the outsides of the thighs. At this time the subject was receiving 30,000 I.U. vitamin A daily. During the course of the study two wounds were made in the back; one, after the subject had received no source of vitamin C for three months and the second at the end of the six-months period. Ten days after each wound was made, biopsy specimens were taken to determine the extent of healing. The first wound healed normally; but in the second, only healing of the epithelium occurred. Beneath the skin the wound

was filled with an unorganized blood clot and contained no granulation tissue.

The teeth and gums showed no gross changes during the experimental period except for a small hemorrhage at one gingival margin following a fatigue test. X-ray films of the teeth showed alveolar lesions similar to those described in scorbutic guinea-pigs. These lesions improved after the patient resumed his normal diet. During the entire study the subject did not suffer from anemia, a finding which refutes the belief that vitamin C deficiency *per se* may result in anemia and which is further supported by the work of Lozner (13) who found that anemia associated with a total absence of plasma disappeared in patients when they were given iron therapy alone.

Extensive work on animals has led to the belief that ascorbic acid plays a vital role in the defense mechanisms of the body. In the above mentioned study (12) no evidence of infection was observed throughout the course of the investigation and a normal blood-complement titer was maintained even after signs of ascorbic acid deficiency appeared. Possibly a lack of vitamin C in itself does not significantly lower the resistance of an adult to disease. The subject developed a marked feeling of fatigue as early as the third month and at the end of the six months a test at the Fatigue Laboratory of Harvard University showed a markedly reduced capacity for work. Other similar studies will undoubtedly help clarify the effects of a drastic vitamin C deprivation in man.

*Vitamin P.* As early as 1936 Szent-Györgyi and his co-workers (14) suggested that there is another substance closely associated with vitamin C in foods which, in the words of the authors, "brought back the fragile and permeable capillaries to their normal state." No one has yet succeeded in confirming these findings with guinea-pigs, nor has Szent-Györgyi been able to repeat his previous work. Scarborough (15) states, however, that failure to control vitamin P nutrition might explain the inability of many workers to correlate capillary fragility with the degree of vitamin C deficiency noted. In six patients with suspected multiple vitamin deficiencies and in one experimental subject he found that the capillary fragility was not affected when pure ascorbic acid sufficient to saturate the patient was fed. On the other hand, the feeding of orange or lemon juice or a concentrate prepared from orange peel freed of ascorbic acid reduced capillary permeability very quickly. Kugelmass (16) has also reported favorable results from feeding vitamin P to children with allergic or infectious purpura. The children were given a solution of eriodactyl and hesperidin. Eriodactyl, a very complicated organic compound, is believed to be vitamin P. Proof of its essential nature would clarify many of the apparent discrepancies in studies on vitamin C.

*Vitamin B-complex.* The excellent paper by Jolliffe (17) covers the information about this group of vitamins through September 1940. It is extremely difficult and probably not at all necessary to separate completely the effects of insufficient amounts of the individual vitamins in this group. In all probability a deficiency of one member means inadequacy in respect to others. A number of diseases have been treated

by the use of concentrates containing all these vitamins or by the use of two vitamins such as thiamin and nicotinic acid together. For example, Ménière's syndrome has been treated successfully with thiamin and nicotinic acid (18). Similarly, Stone (19) has found that children suffering from Sydenham's chorea may improve markedly when a vitamin B concentrate is given. He also reports that in fever therapy the deleterious effects of the treatment can be overcome by feeding a vitamin B concentrate in addition to intramuscular injections of thiamin chloride.

Apparently the same general symptoms may result from a lack of any one of several of these vitamins. For example, both Sebrell and Sydenstricker (20) have presented convincing evidence that cheilosis, a cracking and fissuring at the corners of the lips, may be cured by the feeding of riboflavin. Smith (21), however, notes instances in which cheilosis responds to treatment with pyridoxin instead of riboflavin. Some mental and nervous symptoms seem to be due to an insufficient amount of either thiamin or nicotinic acid. It is not surprising that a lack of these substances, believed to function together in the enzyme systems of the body, may produce similar symptoms. We know little about the interrelationships of the vitamins and therefore what effect lack of one may have upon our requirement for another.

Williams and his collaborators (22), in a study of the effect of induced thiamin deficiency in healthy women, found that fatigue and listlessness and loss of appetite developed early in the experiment and increased to the point of intolerance for food. When the women forced themselves to eat, they immediately vomited the food. They were irritable, depressed and unable to concentrate; their memory was uncertain; they feared insanity and were self-conscious and awkward in the presence of others. All were troubled by giddiness, dizziness and insomnia, and complained of backache, vague aches and pains. All the symptoms, many of which were typical of neurasthenia, disappeared when thiamin was given. Williams states that "a feeling of unusual well-being associated with unusual stamina and enterprise accompanied the period . . . in which the intake of thiamin was at the level of 2 mg. daily." This amount is approximately twice that formerly believed necessary for good health.

Sydenstricker and his associates (23) have reported the ocular manifestations of ariboflavinosis which consist of photophobia and burning and itching of the eyes. These symptoms responded regularly within 48 hours to 5–15 mg. doses of pure riboflavin. Marked dilation of the pupils disappeared in many patients after treatment. In 10 patients showing varying degrees of vascularization of the cornea, the condition diminished in 7 treated patients and increased in 3 untreated patients.

Field and his associates (24) suggest that chapping of ankles, elbows, and knees, ichthyosis-like scaling and excessive formation of calluses may be indications of mild pellagra which become aggravated on exposure to cold and wind. All of Field's subjects suffered from various nervous and mental symptoms and some had not felt well for years, but physical examination completely failed to show the presence of any organic disease. Since he fed his patients yeast and a liver extract, the excellent results

obtained cannot be attributed to any one vitamin in this group.

Clinicians have long realized that deficiency disease may predispose an individual to infections, and vice versa, but all attempts to show that any one vitamin may be termed "anti-infectious" have failed. Field (25) states that there is clinical and experimental evidence to show that a lack of ascorbic acid, nicotinic acid or vitamin A may result in fusospirochetal infections of the mouth as in Vincent's angina (trench mouth). Spies and his co-workers (26) studied 150 cases of clinical pellagra, riboflavin deficiency and beriberi. Before, during, and after treatment the bacterial flora of the lesions in the mouth were examined. In 80 per cent of the cases of riboflavin deficiency the sores yielded nearly pure cultures of hemolytic strains of *Staphylococcus aureus* and in 20 per cent, *Streptococcus haemolyticus* predominated. The micro-organisms could no longer be found after the patients were treated with riboflavin. The fusospirochetal organisms associated with trench mouth and nearly pure cultures of hemolytic bacteria were obtained from ulcers of the mouth similar to those so frequently seen in malnourished individuals. As was the case in riboflavin deficiency, immediate disappearance of the micro-organisms followed therapy with vitamin preparations.

There are several other vitamins which belong in the B-complex group but we have no evidence which assigns them an essential role in human nutrition. Among these are the anti-grey hair filtrate factor and choline. Morgan's work on animals certainly suggests that a lack of the first-mentioned factor may be responsible for some of the grey hair seen in people. It has also been suggested that pantothenic acid is an active factor here. It is possible, too, that man has a definite need of choline. Györgyi, on the basis of work with rats, suggests that certain types of renal necrosis found quite commonly in human beings may be due to a deficiency of choline. This problem and others, however, await further evidence. Better ways of testing nutritional status and a wider knowledge of what we actually mean by optimal health are necessary before we can evaluate the place of the new vitamins in human nutrition.

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## *Nutrition and Physical Efficiency*

In spite of its practical importance, little evidence has yet been presented with regard to the relationship between nutrition and physical efficiency. During recent years numerous valuable clinical contributions to the subject have been made. But little is known about the effects on physical efficiency of physiologically deficient diets of the kind consumed by the working population all over the world. On previous occasions we have drawn attention to the paradoxic fact that it is the class of badly nourished people, of the white, black, brown and yellow carbohydrate eaters, who perform the bulk of manual labor on the six continents of the globe. While this observation certainly does not indicate that such a state of affairs should be regarded as satisfactory, this is surely a physiologic phenomenon of supreme interest.—*Jokl, E., and Cluver, E. H., Physical fitness, J. A. M. A., 116: 2386, 1941.*

# EDITORIAL

## THE ST. LOUIS MEETING

Never in the history of the American Dietetic Association has a program more aptly and adequately covered the widening field of activities of the dietitian and the nutritionist, nor pointed out more forcefully the current problems confronting the members of the Association, than that presented at St. Louis. Mrs. Marie C. Harrington and Dr. Bertha Bisbey, who planned the program with the assistance of Gladys E. Hall, deserve special mention for their efforts and skill in arranging and presenting such a wealth of inspiration and information.

Not only was the high quality of the program evident throughout the meeting but equally commendable was the smoothly-running machinery by which it was possible to condense almost a liberal education in four short days. Those at the helm and responsible for the excellent arrangements were Ruth M. Kahn and Mary C. St. John; and the several local members of the convention committee who served under them carried out their duties with precision and a gracious and never failing sense of real hospitality.

The dominant note of the program was sounded like a clarion call by the speaker at the Welcoming Luncheon, Dr. Park J. White, who said: "The adequate distribution of food, like our treatment of children and minority groups, is a real test of our civilization. The moving finger writes, and having writ, moves on. *Mene, mene, tekel, upharsin.* We have been weighed in the balance, and, God help us, have been found wanting. If that isn't food for thought, what is?" Encouraging, however, were the remarks of Dr. Herbert C. Peden, president of the St. Louis Medical Society, who praised the contribution that had been made by members of the American Dietetic Association to the body of our nutritional knowledge. The urgency of the national situation was emphasized as well in the opening address by Dr. Russell M. Wilder, who pointed out that "that much quoted 45 million below the safety line might, if measured by the dietary yardstick set up by the National Nutrition Committee, be 90 million instead."

The practical means by which the members of the American Dietetic Association could combat this situation which confronts us were detailed in section meetings and workshops attended by large and enthusiastic audiences. Speakers presented broad vistas of the work now being done all over the United States by dietitians and nutritionists. Administrators discussed the practical means of raising the nutritional level of the nation. Research workers detailed much new and interesting data to supplement our knowledge. Distinguished clinicians discussed the several phases of the dietary treatment of disease; and high ranking members of the United States Army told one of the most dramatic stories of the convention—that concerned with the feeding of an army of 1,500,000 young men, thereby physically fitting them to safeguard our nation.

The nutritional needs of all groups, infants, children, youths and the mature, in health and sickness, and during the stress of conditions now present because of the national emergency, all were discussed

from the varying aspects which the several situations demand.

The Office of Civilian Defense, Washington, D. C., was represented by an Assistant Director, Eloise Davison, and that of the Office of the Coordinator of Health, Welfare and Related Defense Activities by the Nutrition Adviser to the Director, Dr. Helen S. Mitchell. The American Medical Association was represented by Dr. W. W. Bauer, who ably discussed the technique of presenting health information on the air. Dr. Mayhew Derryberry, U. S. Public Health Service, offered other means of presenting information to the public through the use of exhibits. Many other representatives of private and public social agencies and state departments of health were in attendance.

It was a meeting rich in opportunity for information and guidance. But the essentially practical nature of the program did not exclude entirely the cultural and purely academic aspects of our interests. In a philosophical discussion of our present educational aims Dean Margaret Justin of Kansas State College said: "Hundreds of colleges claim large prerogatives year by year because they 'offer courses and curricula in the cultural subjects' . . . there is a paucity of that which would interpret the individual to himself or relate him to his own times. The ill is not that the cultural value is lacking in a course in thermodynamics or dietetics. It is rather that we need more than technical proficiency and specialized knowledge, vital as these are. The other kind of knowledge we need is very different from specialized knowledge, but it is just as important. Perhaps it is even more important. . . . It is that knowledge that makes possible the integration of the individual's powers and capacities with the culture of his time. It enables the individual to understand his interests, drives, and the satisfactions sought and to harmonize these with the realities, forces, and demands of the current social order."

## A TRIBUTE TO MARY SWARTZ ROSE[1]

A short year ago, on Monday, October 20, 1940, this Association was privileged to hear one of its beloved leaders, one who had been with us all along, through twenty-three happy and less happy years, guiding, encouraging, and helping us to find our place in the modern world's design for living. How great the privilege was, only later were we all to know, although some may have sensed even then that we were hearing Mary Swartz Rose speak to us as an Association for the last time. She must have known that it was to be the last time, yet how spiritedly and courageously she responded to our gesture! It was the same Mary Swartz Rose we had known through the years, the always bright and shining star of the many annual meetings she attended as a speaker.

Our hearts are stirred as we look back now on those years when she was with us. The love and esteem in which this Association as a group holds her memory, bind us firmly together, makes us purposeful, imbued with her teachings which have extended far beyond her immediate academic circles. As a teacher, none could surpass her ability to weave dry,

[1] Presented by the editor of the JOURNAL before the Opening Session of the American Dietetic Association, St. Louis, October 20, 1941.

nutritional facts into the very fabric of our lives, sending us forth inspired, to work tirelessly that the truth might prevail. Her mind was a rich storehouse of forceful and apt phraseology, of a seemingly inexhaustible fund of knowledge. And like other truly great teachers, her lectures "provided superb examples of the reasons why the living voice has not given way to the printing press." Vividly, and in logical sequence, she opened the pages of learning for us. Her mind was a Valhalla, peopled with the heroes of nutritional science, past and present, and by the magic of her teaching those of the past were made to come alive and their works became an unforgettable part of our mental armamentarium.

But that noble mind and spirit encompassed far more than teaching, satisfying as this alone can be. As her friend and colleague of many years, Grace MacLeod, has reminded us: Lafayette Mendel once said of her, "You know Arnold Bennett has written a book on 'How to Live on 24 Hours a Day.' Well, Mrs. Rose has found the 25th Hour!" For she found time to be a teacher, a scientist, a humanitarian, and a woman.

Science demands that its disciples be cold, unemotional, analytic, dispassionate. Mary Swartz Rose could be all this. But she never lost sight of the fact that science is also closely akin to the things of the spirit as they relate to the love of truth and the self-effacement of its worthy disciples. Her scientific interests were not concerned with the cold and distant phenomena of astronomy or atomic physics, but with those aspects of chemical science, the mastery of which in all truth increases man's ability to control his own destiny. We recall here a line from one of her books, in which she said "there can be no life of the spirit without sustenance of the body." All her life she worked toward shaping a society in which all the possible resources of science and production could be used for the good of mankind.

We may be comforted when we realize that she at least has been spared the knowledge that in this short year the social and economic structure of the whole world has been shaken to the foundation, helpless civilians and their homes ruthlessly destroyed, and age-old monuments of a great democracy leveled to dust and rubble. But she would doubtless have been quick to point out, courageously, that out of even catastrophic war, some good must come. That better nutrition must serve the purposes of defense, means that it will also serve the bright dawn of peace. Food is no longer merely a trade commodity like iron or coal, to be measured solely in terms of quantity. The food requirement for health is no longer merely a medical question, but as Mrs. Rose long pointed out, it is fundamental in the whole social, economic and agricultural set-up. Freedom from want, freedom from fear, freedom to attain a full life—all are inseparable from food.

Some may see a deep significance in that the intervening year, since we last assembled, has been fraught with a promise of fulfilment, a culmination as it were of all that had gone before in our profession for the past quarter of a century. For the first time, the really timeless import of nutrition as the fundamental bulwark of a people who would be strong is given its rightful precedence in a united effort toward making a nation strong and purposeful. For the first time, the moral fiber of a people is being

recognized as heavily dependent on the quality of that people's nutrition. The accent on food during other national emergencies had been almost wholly on the quantity, not the quality, of the increment. Through all this coming of age of the science of nutrition, we who carry its banner have been buoyed by the memory of one whose life was devoted to that which we have seen coming slowly to fruition. But all the while we have been saddened that she whose work so largely motivated that which we have seen come to pass, has been absent from our councils.

It is of Mary Swartz Rose the woman, too, as well as Mary Swartz Rose the teacher, the scientist, the humanitarian, that we would have you hold the memory. For she lived two full lives, and one belonged to her family. It is her womanly qualities, qualities which distinguish all women who truly may be called great, that we commemorate today while we pay tribute to her worldly attainments. For her warmly feminine characteristics, her intense interest in the welfare of children and the family, her sensitive intuition and insight into other people's problems and troubles, endeared her to us, and set her apart in a world of selfish unrest. Of her it may be said that she was one:

> Who never sold the truth to serve the hour;
> Nor paltered with Eternal God for power.

And so, as has been said of other brave men and women, she died in the line of duty. Perhaps she would have wished it so, for no one who knew her could have pictured a Mary Swartz Rose in a "world too wide" for her, defeated by the heavy weight of years. Thus at the proud crest of her life's attainment and with a full measure of the honors this world admits, she came to the end of her life's journey.

## *"Keep Fit With the Right Foods"*

A list of popular and semi-popular books on nutrition covering general and special topics, including bulletins for professional leaders of nutrition projects and the lay public, periodicals of interest both to the layman and the professional worker, and bibliographies and references to local sources of material, were assembled by Dr. Helen S. Mitchell, Office of Defense Health and Welfare, Washington, and published in *The Booklist* for September 1941. This information was sent to around 7000 subscribing libraries and additional reprints of the article are available through Dr. Mitchell's office in Washington. It should be noted, however, that no library is likely to provide reliable and ethical information on health and nutrition unless a demand for such material is created. Dietitians and nutritionists actively engaged in state nutrition programs should see to it that libraries are equipped with suitable material and should also see that interest is aroused in communities so that people will demand that local libraries be supplied with reliable information. Too often quack and pseudo-scientific publications are found on library shelves where at times they are placed by interested authors. It is urged, therefore, that physicians, dietitians and nutritionists see to it that reliable information on health and nutrition supplant the questionable, now found on the shelves of many libraries.

# BOOK REVIEWS

**The Vitamin Content of Meat.** By Harry A. Waisman, Research Associate in Biochemistry, and C. A. Elvehjem, Professor of Biochemistry, University of Wisconsin. Minneapolis: Burgess Publishing Company, 1941. Pp. 210. Price $3.

As well stated in the foreword, "Man's debt to animals is very old." Farm livestock, for instance, supply large and critically important items in the human diet, and hundreds of thousands of people "are dependent for life itself upon the alchemy of domestic animals in transforming crude plant materials into biological products like insulin and liver that are a daily necessity to persons afflicted with diabetes and pernicious anemia."

The chapter following the introduction covers the nutritive value of meat, including data on consumption, digestibility, the function of meat for growth, reproduction and lactation, meat in the "pathological diet", protein, fats and fatty acids, carbohydrates and minerals in meat, and a table of the amino-acid content of animal tissues. These data are based largely upon an appended list of 92 references. The twelve chapters on the vitamins, from A to pantothenic acid and other additional factors, are each in reality a concise summation of our present knowledge of the vitamins, including the physiological and therapeutic aspects and methods of assay. In addition, of course, special attention is given to each vitamin as it relates to animal tissues, and tables are included showing the relative value of animal tissues as sources of a given vitamin. As with the first chapter, imposing lists of citations serve to bolster the statements made and conclusions reached in each chapter.

Other sections include a chapter on the methods used in the authors' laboratory in preparing the samples upon which their studies on the distribution of the B-complex in animal tissues were based, and another on the proximate analysis of the animal tissues for moisture, fat and protein. These figures are for dried, baked, fried, roasted, broiled and stewed meats.

More than half the book's content, as might be expected, is devoted to the B-complex group of vitamins. The authors' tables on the $B_1$ content of meat and the stability of this vitamin during cooking are included. In discussing thiamin and riboflavin the authors emphasize the importance of meat as a good source of the first, and that meat and meat products, as ordinarily consumed, supply at least one-quarter of the riboflavin requirement.

The remaining known factors of the B-complex—nicotinic acid, pyridoxin, and pantothenic acid—are treated *seriatim* in separate chapters with tabulations of the values for each in animal tissues. Other less well known chemical substances, now considered as components of the B-complex, namely: choline, inositol, the anti-grey hair factor and biotin, their present status and possible and known sources of each in animal tissues, are briefly discussed. The authors cite evidence which suggests still other factors of the B-complex and intimate that it will not be unexpected if meat and meat products are found to contain many of the as yet unidentified nutrilites.

The closing chapter very properly points out the importance of considering the value of specific foods as sources of a certain group of factors—for instance, meat and the B-complex group—or, more specifically, the ability of a particular tissue to supply the several members of the B-complex. The authors then present their results upon supplementing the Goldberger diet with various levels of animal tissues. This logically leads to several interesting speculations and observations on the interrelationship of the vitamins. The greatest possibility for studying such interrelationships, they believe, lies in the use of purely synthetic diets or through the use of diets containing quantities of vitamins in different combinations, for this might answer the question of the increased or decreased need of a given vitamin when other vitamins are fed in suboptimal amounts. They assert that "Although we usually think of a vitamin acting together with other vitamins to give the necessary normal chain of chemical reactions, there is no reason to assume that an excess of a particular vitamin will do no harm, nor conversely is there any justification for the belief that the need for a vitamin remains the same if a suboptimal amount of another vitamin is given. Also, nothing is known about the need for a particular factor if another vitamin is left out."

It is perhaps unnecessary to add that this book will be indispensable to the dietitian. It is admitted that the whole subject is still in a

dynamic stage and much more needs to be done before wholly reliable figures can be presented, but there is little doubt that the findings of these Wisconsin investigators will stand the test of time with but minor revisions.

**The Best Men Are Cooks.** By Frank Shay. New York: Coward-McCann, Inc., 1941. Pp. 281. Cloth. Price $2.50.

There are many who will second the Shay pronunciamento that men have a greater feeling for food than do women. Men "honor good food, especially fresh food, and they know instinctively that the less it is complicated the better—only poor food needs a disguise, and then it should not be eaten." But wait, the worst is yet to come, for he goes on: "Women have reduced cooking to a science while men cooks are working to restore it to its former high state as one of the finer arts." Mr. Shay even takes a crack at the revered Mrs. Beeton; his book will have none of the "gush and rhetoric" of this 19th century lady who, he says, put the blight on English cuisine.

All of this naturally arouses any feminine dander and we are not displeased to find that Mr. Shay uses the "hunt and find" system in his recipes, washes his fowl before he cleans it, like a smart Alec in Wonderland, and at times gets in such a dither that he omits the garlic from his scallopini, the potatoes from his pork pie and puts baking powder in his Yorkshire pudding.

But we must give Mr. Shay his due. Practically all his recipes and certainly his suggested menu combinations show a fine sense of culinary discrimination. What he has to say anent *les crêpes* is apt: "Take simple, honest, back-country pancakes, put them in the hands of a second-string entrepreneur, add a jigger of brandy and a touch of music, and they become, oo-la-la, *crêpes suzette*; and the price for three is jacked up to a dollar-fifty."

While women may and do regard the male in the home kitchen as men regard the female behind the steering wheel of a car, the content of Mr. Shay's book indicates that he at least stirs a mean spoon productive of excellent chowders, meat dishes, masterly sauces and the only salads worthy of the name.

**Food Analysis. Typical Methods and the Interpretation of Results.** Fourth edition. By A. G. Woodman, Associate Professor of Analytical Chemistry, Emeritus, Massachusetts Institute of Technology. New York: McGraw-Hill Book Company, 1941. Illustrated. Pp. 607. Cloth. Price $4.

The content of this book is an outgrowth of the courses given by the author to his classes in food analysis. Certain typical foods have been selected to illustrate characteristic methods of analysis, and the approach is suited especially to the undergraduate student of analytical chemistry rather than the practicing chemist. The list of chapters include: general methods; the microscopical examination of foods; food colors and preservatives; chemical preservatives; milk, cream and ice cream; edible fats and oils; carbohydrate foods; spices and other condiments and flavoring; and "alcoholic foods." Numerous illustrations of laboratory equipment, procedures, figures showing the elements of certain food accessories, and microphotographs are included to assist the student.

The present edition brings the methods of analysis up to date, covers new material relating to the detection of post-prohibition practices in the manufacturing of alcoholic beverages, and new procedures now that dextrose is placed on a par with cane sugar. Other modifications are concerned with newly permitted dyes and oil-soluble colors, while that section relating to preservatives, now being of less importance, is condensed to the minimum.

**A Nutrition and Dietetics Workbook.** Revised. By Alberta Dent, Associate Professor of Home Economics, New Jersey College for Women. For sale by the author at $2.40.

This is a revised manual of problems and exercises covering the basic facts in the field of normal nutrition, for use by college students taking courses in nutrition and dietetics. Changes have been made in this edition in line with the new nutrition standards proposed by the Committee on Food and Nutrition of the National Research Council.

# Annual Reports 1940-41 and Proceedings St. Louis Meeting[1]

## President's Address[2]

Twenty-three consecutive times the members of this Association have met to report progress, to share information, to learn from others and to plan a program for the next year. Now for the twenty-fourth time, we are convening. Not since the first small group was organized in time of war has our Association faced as severe a test as that which confronts us today. In 1918 there were few dietitians and the majority of these had had little formal training. Today our Association is composed of over 4700 members who have a sound home economics background with additional specialization in the practice of their profession. We have set up and adhered to definite standards in the belief that when the test should come we would be ready. The test has come and our standing depends on how it is met by our members.

Perhaps this report should deal with the present and the future rather than the past, but today offers the opportunity to give you an account of your President's stewardship, thus a report of the year just ending and a forecast of the year to come is in order.

Last year a Defense Committee was appointed which has carried on to the present time. The objective was stated as follows: "To be organized so as to use our special abilities to the best interest of our country and our local communities." The major points of the program are:

1. Registration of active and inactive *qualified* dietitians. This was guided by the House of Delegates with Nell Clausen as chairman. The returned registration cards are filed both in the Business Office and in each state. The lists are available to other organizations and have proved useful in selecting volunteer workers and speakers. The Placement Bureau has used them to some extent.

2. Cooperation with allied organizations and social agencies, Mary de Garmo Bryan, chairman.

3. Legislation, Alma Bering, chairman.

4. Military status for dietitians, Mary M. Harrington, chairman.

Our attitude on the subject of military status is not so definite as it was last October. Over one hundred dietitians are now in Army hospitals, some of whom feel that military status is desirable while others disagree. It is hoped that this question can be thoroughly discussed during the week. If the membership decides that the Association should demand such recognition, a definite program must be decided upon and adhered to. It will mean an investment of time, money and effort.

In addition to our national defense program each affiliated association is participating in its own state program. There is a nutrition member on many of the state councils on defense. Beula B. Marble represents the A. D. A. on the advisory committee appointed by M. L. Wilson, and is working closely with Dr. Helen S. Mitchell, Nutrition Director for the Federal Security Agency. Other members have been called to Washington on important defense jobs.

Lenna F. Cooper, chairman of Professional Relations, has been untiring in her

[1] The American Dietetic Association, St. Louis, October 17–23, 1941. Certain reports of sub-committees of sections and those of other committees which do not appear under this section, will be published later in this JOURNAL in whole or in part, or are to be on file or will be available in mimeographed form at the Business Office of the Association.

[2] Presented at the Opening Session, October 20, 1941.

efforts and reports several splendid accomplishments. The American Hospital Association has endorsed the standards of our Association and the National Better Business Bureau plans to distribute a brochure which defines clearly what the term dietitian means. Miss Cooper has kept in touch with the Office of the Surgeon General and has represented the Association at many important meetings and on the Group Action Council. It is significant of our growth that our organization is now represented at many meetings, but this means but little unless we as individuals, as well as a group, make a worthwhile contribution. A number of dietitians are teaching classes for the American Red Cross, American Women's Voluntary Services Inc., American Association of University Women and other agencies, in addition to their routine responsibilities.

The national Office of Civilian Defense is extending its program into every "middlesex, village and farm." Eloise Davison, one of our members, is an assistant director. She will be calling on you for leadership in nutrition studies, classes in consumer education, and the like.

Your generous response to the campaign for raising money to purchase a mobile kitchen was gratifying. This project was sponsored by the Chicago Dietetic Association with Ella M. Eck as chairman. The kitchen was given in the name of the British dietitians and there is enough money remaining for its upkeep. Perhaps each state would like to continue this project for another year or even longer, so that if need arises the kitchen can be replaced.

Terrific pressure has been put on the Placement Bureau this year. There is a shortage of qualified dietitians and it has not been possible to fill all the openings from our membership. Some hospitals with approved courses for students are taking more graduates than usual; other qualified hospitals and departments of administration have organized a new course or are considering doing so. It is imperative that the American Dietetic Association do everything in its power to keep the profession of dietetics on that high level which it has attained through untiring efforts. We must not rest on our laurels. Refresher courses must continue to be given and you are the people who will have to give these even at a tremendous sacrifice of time and effort.

Now, what about next year? The new JOURNAL is symbolic of the attitude of the Association. It has taken courage to launch a larger, twelve-issue JOURNAL but it will enable us to give more service to our membership and to those who support our publication in a practical way. Twelve issues will mean added responsibilities for Mrs. Huddleson, the editor. Are you all aware of the excellent way our JOURNAL is edited? You should have a feeling of pride each time it reaches your desk—and next year that will be twelve times.

There are several thoughts to bear in mind in connection with the nutrition of the people in our country. The men in Army service are being well fed. The organization which has been set up makes it possible to assure meals which more than meet the standards recommended by the Nutrition Committee of the National Research Council.

The United States Army is doing a good nutrition job for the selectees but this is only a part of the health program connected with national defense. Probably the largest organized group in the country is the Army, and here the concentrated nutrition effort is comparatively uncomplex. But what of the 400,000 men who have been rejected? Brig. Gen. Lewis B. Hershey states that at least 200,000 of these might be used for limited military service, with perhaps 100,000 capable of rehabilitation to a point where they could assume full military service. What is our responsibility in urging a program of this kind?

And what about our young women? If

a total draft were to be made, would they measure up to standard? The craze for reducing has been carried to the point of affecting health in many instances. Should you, through your local organization, sponsor a nutrition campaign for girls?

What shall we do, too, about the children—the children of the poor, and the ignorant, as well as the rich who have not realized the treasure of health? What about the older workers who may be so necessary in defense jobs? There are thousands of them with vague pains, who are slowed down in their movements and productively under-par. Nutritionists claim that old age can be deferred—if not in years, in accomplishments—by an adequate diet throughout all ages. What is our responsibility?

The year of work that we are now entering is our year to prove that the American Dietetic Association has developed women of vision, capable of leadership, women selfless in their desire to aid in making every citizen in the United States better fitted physically for whatever lies ahead. Courage and stamina are not found in the undernourished. Bravery is not an attribute of men and women handicapped by hidden hunger. What can we contribute this year to help people become stronger, braver and better prepared for total defense? The answer may be found through the program of your national and state associations and through your individual effort.—MARY I. BARBER.

## President-Elect and Affiliation Chairman

Through clinics, hospitals, schools and community projects, members of the American Dietetic Association have endeavored to improve the nutritional status of children and adults. In 1941 the world-wide emphasis on the importance of nutrition in defense has furnished new opportunities. With these new opportunities have come responsibilities which the state associations have met in a strong and vigorous manner. Their contributions to the campaign for better nutrition have been most significant. Their programs have included education in food selection and the preparation of information on nutrition to be distributed to the public; they have given lectures, demonstrations and broadcasts and have prepared material for newspapers.

It has been my privilege to attend eight state association meetings during the year and to learn directly of their plans for work. Twenty-nine state associations had requested national representatives to speak at their meetings. Representatives were provided for twenty-six associations; one date was cancelled. In two instances it was impossible to send a representative because of conflicting dates. It is hoped that next year each state association will ask for a representative who can visit that state.

A plan for simplifying the scheduling of representatives to state meetings has been presented to the House of Delegates which suggests that the educational director include all meetings which are possible on her inspection trips. Her schedule and that of other officers can be made available to the state associations who should take these into consideration when making requests for speakers. This plan would make the expenses for all associations more nearly equal. If a state association wished a particular representative who had not been scheduled for that part of the country or requested a speaker at a time not scheduled, the proper arrangements could be made with the understanding that the state group should bear the entire expenses.

Through the visits of a national representative, members may learn more of the aims and ideals as well as the functions of the American Dietetic Association. They may gain advice and encouragement and receive many suggestions which the speaker passes on from other states. The representative, in turn, comes to know many of

the members and their capabilities and the Association becomes more unified through this closer cooperation.

The Affiliation Manual has been revised and distributed. Certain revisions have been made in the Constitution in line with national organization.

Four state associations have been organized for affiliation during the year. The affiliation of two was completed before the annual meeting and it is hoped that the other two will become affiliated in 1942.

As president-elect I represented the Association at a meeting of national women's organizations called by the General Federation of Women's Clubs to discuss the part which women's organizations can play in the defense program. Each representative reported briefly on the plans of her organization and a general program for contributing to defense, to be presented to each organization, was drawn up. Ninety-two national women's organizations were invited to send representatives and 87 accepted.

This year has given me an opportunity to know many of you. Next year I hope to become acquainted with many more members and to learn your wishes in regard to the Association. Your suggestions can be most helpful in furthering the professional progress of the Association.—NELDA ROSS.

## Vice-President and Chairman, House of Delegates

At the 1940 meeting of the American Dietetic Association the House of Delegates was assigned a number of projects for the year; namely, (1) the registration of all dietitians as a defense measure; (2) a survey of the attitude of the membership on methods of increasing the income of the Association; (3) the appointment of members to state nutrition councils; and (4) the organization of state defense programs.

The registration of dietitians has been completed and registration cards are filed in the Business Office with duplicates in the office of the delegate or the president of the state association.

Two letters were sent to delegates asking for a report on the vote for increased income. Of the 23 states which reported, 14 were in favor of changing the format of the JOURNAL and 9 in favor of increasing dues. The summarized results were presented to the Executive Board in February. With this report from the states, the Board voted that the JOURNAL be increased to 12 issues a year, to take effect with the January 1942 issue.

Twenty-one state associations reported that one or more members had been appointed to state nutrition councils.

The majority of the states are working on nutrition defense programs suitable to their locality. Speakers' bureaus, refresher courses and nutrition clinics are most often reported as the approach used in the promotion of better nutrition. Financial aid to British civilian relief has been contributed by some state associations.

Three special committees have been at work during the year: one to study organization of the House of Delegates in other related associations; one to prepare an Outline of Ethical Procedure for Dietitians; and one to continue the preparation of a map as a guide to meeting places for the annual meetings. Progress reports of these committees were presented at the first meeting of the House of Delegates in St. Louis.

An attempt was made by correspondence to determine the attitude of delegates as to their term of office, date of expiration of such terms of office, and duties of the House of Delegates. Replies were summarized and presented to the Executive Board. The Board agreed that the term of office of the delegate continue to be two years; that the new delegate assume office immediately after the next annual meeting of the Association, her term to expire after two subsequent annual meetings of the House of Delegates; and that the duties

of the House of Delegates remain the same for the present.—NELL CLAUSEN.

## Treasurer

The Treasurer's report as of August 31, 1941, covers the period from August 31, 1940. All accounts of the Association are kept at the Business Office in Chicago by a trained bookkeeper and audited yearly by Scovell, Wellington & Company, Accountants and Auditors. A certified statement of the financial affairs of the Association appears in the Annual Reports and the complete auditor's report is available at any time in the Business Office.

Membership growth has resulted in an increase in income of over $2,000 and Placement Bureau income has increased about $1,000. This increase was partially due to a decrease in expense, since the shortage of dietitians meant there was no longer need to advertise the Placement Bureau this year.

Royalties totaling $1,129.51 were received from J. B. Lippincott and Company on sales of *Quantity Food Service Recipes*. The costs previously paid by the Association amounted to $716.91, leaving a net income of $416.40.

As in prior years, the JOURNAL income includes only income from non-member subscriptions, advertisers and reprint sales, and includes no portion of membership dues, although some part of such dues collected from members is, in reality, in payment for the JOURNAL. The income for 1941 was $18,873.09, as against expenses of $22,991.21. Office expenses have risen $1,959. However, JOURNAL expenses do not include any portion of the Business Office expenses, which are necessarily incurred in handling subscriptions. Likewise, no part of the general office expense is charged against the operation of the Placement Bureau, although a check kept recently indicates that over half of the telephone bill could be charged to Placement Bureau. Half the amount spent for postage and express, as well as half the office salaries, exclusive of the business manager's salary, was spent for other accounts which have their own budget. Inter-office accounts show that Placement Bureau has a charge of $2,952; the JOURNAL, $774; while general committees, all of whom have their own budget, cost the office $488 in addition.

The expenses of all educational activities are now grouped under "Educational Program." This includes the salary of the educational director, her secretary, and "Hospital Inspection." Expense under this heading, naturally, shows a large increase, due to the employment of the director with secretarial assistance.

It is a pleasure to report that the mobile kitchen fund had a very generous response as follows:

| | |
|---|---|
| Deposited with the American Dietetic Association | $2,589.65 |
| Paid to the British War Relief Society | $1,750.00 |
| Bank exchange and supplies | $105.05 |
| Balance on hand | $720.60 |

The auditor's condensed report follows. The excess of income over expenses was $6,868.00 as compared with $1,177.17 for the preceding year. A summary of the gross income, expenses and net income for the year under review, and a comparison with the net income of the preceding year is included.—MARGARET COWDEN.

## Auditor's Condensed Report

SCOVELL, WELLINGTON & COMPANY

Accountants and Auditors

Chicago, September 25, 1941

Miss Margaret Cowden, Treasurer
The American Dietetic Association
Chicago, Illinois

Dear Madam:

We have made an examination of the accounts and financial records of the American Dietetic Association, an Illinois corporation not for pecu-

niary profit, for the purpose of reporting upon its financial condition as at August 31, 1941 and the results of its operations for the year ended at that date. Under date of September 25, 1941, we have submitted a complete report covering our examination. This condensed report is submitted at your request and contains only a summary of the information contained in the complete report. We submit herewith as Exhibit A a balance sheet as at August 31, 1941.

THE AMERICAN DIETETIC ASSOCIATION

*Balance Sheet as at August 31, 1941, Exhibit A*

*Assets*

| | | |
|---|---|---|
| Cash | | |
| In General Bank Account | $17,156.99 | |
| Revolving Fund | 76.13 | $17,233.12 |
| Marketable Investments | | |
| (Market Value approximately $12,010) | | 11,819.38 |
| Accounts Receivable | | |
| Members, Dues | 25.50 | |
| Members, Placement Bureau Fees | 232.50 | |
| Journal Advertisers | 88.25 | 346.25 |
| Inventories, at Cost | | |
| Miscellaneous Publications | 172.59 | |
| Stationery, Printing and Supplies | 557.85 | 730.44 |
| Furniture and Fixtures, at Cost | 6,095.35 | |
| Less Reserve for Depreciation | 3,772.43 | 2,322.92 |
| Deferred Expense | | 223.76 |
| Life Membership Fund Assets | | |
| Cash in Bank | 214.49 | |
| Investments, at Cost | | |
| (Market Value approximately $5,365) | 5,197.41 | 5,411.90 |
| | | $38,087.77 |

*Liabilities and Net Worth*

| | | |
|---|---|---|
| Accounts Payable | | $738.64 |
| Members and Applicants' Credit Balances | | 2,474.50 |
| Total Liabilities | | 3,213.14 |
| Deferred Income | | |
| Advance Payments by Exhibitors, 1941 Convention | | 4,797.50 |
| Mobile Kitchen Fund | | 720.60 |
| Life Membership Fund | | 5,411.90 |
| Net Worth | | |
| Balance, August 31, 1940 | $17,285.89 | |
| Less Adjustment of Prior Years' Depreciation | 209.26 | |
| Adjusted Balance, August 31, 1940 | 17,076.63 | |
| Add Excess of Income over Expenses for the Year ended August 31, 1941 | 6,868.00 | 23,944.63 |
| | | $38,087.77 |

*Comments on Income and Expenses*

The excess of income over expenses for the year ended August 31, 1941 was $6,868 as compared with $1,177.17 for the preceding year, a more favorable showing of $5,690.83.

A summary of the gross income, expenses and net income for the year under review, and a comparison with the net income of the preceding year follows:

| | Income | Expenses | Net Income Current Year | (Net Loss) Preceding Year |
|---|---|---|---|---|
| Operating | $29,342.70 | 26,832.55 | 2,510.15 | 6,318.17 |
| Journal | 18,873.09 | 22,991.21 | (4,118.12) | (5,027.77) |
| Annual Convention | 18,249.70 | 9,640.68 | 8,609.02 | (54.08) |
| Non-Recurring | | 133.05 | (133.05) | (59.15) |
| Total | 66,465.49 | 59,597.49 | 6,868.00 | 1,177.17 |

Following is a comparison in somewhat more detail of the income and expenses for the years ended August 31, 1941 and 1940:

| | Year Ended August 31, 1941 | August 31, 1940 | Increase (Decrease) |
|---|---|---|---|
| Income | | | |
| Membership Dues, Net | $23,505.00 | 21,337.50 | 2,167.50 |
| Placement Bureau | 4,773.20 | 4,034.70 | 738.50 |
| Interest Received | 373.19 | 354.77 | 18.42 |
| Royalties, Net | 416.40 | | 416.40 |
| Sales of Miscellaneous Publications | 194.71 | 331.45 | (136.74) |
| Association Seals and Pins | 67.50 | | 67.50 |
| Miscellaneous Income | 12.70 | 21.80 | (9.10) |
| Journal | 18,873.09 | 13,751.21 | 5,121.88 |
| Annual Convention | 18,249.70 | | 18,249.70 |
| | 66,465.49 | 39,831.43 | 26,634.06 |
| Expenses | | | |
| Educational Program | 5,330.10 | 705.26 | 4,624.84 |
| Voting | 111.80 | | 111.80 |
| Administrative | 2,126.71 | 1,438.08 | 688.63 |
| Sections | 95.39 | 206.84 | (111.45) |
| Committees | 558.69 | 172.12 | 386.57 |
| Placement Bureau | 297.77 | 670.23 | (372.46) |
| Miscellaneous Publications | 64.22 | 175.63 | (111.41) |
| Business Office | 18,247.87 | 16,288.39 | 1,959.48 |
| Miscellaneous Operating Expense | | 105.50 | (105.50) |
| Journal Expense | 22,991.21 | 18,778.98 | 4,212.23 |
| Annual Convention | 9,640.68 | 54.08 | 9,586.60 |
| Non-Recurring Expenses | 133.05 | 59.15 | 73.90 |
| | 59,597.49 | 38,654.26 | 20,943.23 |
| Excess of Income over Expenses | 6,868.00 | 1,177.17 | 5,690.83 |

*Comments on Investments and Life Membership Fund Assets*

Marketable Investments..... $11,819.38

The following bonds are held as investments of the general fund:

| Par Value | | Approximate Market Value August 31, 1940 | Book Value |
|---|---|---|---|
| $1,000 | Illinois Power and Light First and Refunding Mortgage Bond, Series A, 6% due April 1, 1953 | $1,070 | 945.00 |
| 7,000 | United States of America Savings Bonds, Series C, Issued March 1, 1937, and due 10 Years Thereafter | 5,740 | 5,740.00 |
| 5,000 | United States of America Treasury Bonds, 2%, Due June 15, 1953–55 | 5,200 | 5,134.38 |
| $13,000 | | 12,010 | 11,819.38 |

We examined the above bonds in the vaults of the Michigan Boulevard Safe Deposit Company on September 5, 1941. All interest coupons falling due during the year were properly accounted for. The securities are carried in the accounts at cost with the exception of U. S. Savings Bonds which are carried at surrender value as at August 31, 1941.

### *Life Membership Fund Assets*

Cash in Bank..... $214.49

This amount is deposited in the general bank account but is set aside in the books as an asset of the Life Membership Fund.

Investments..... $5,197.41

The following bonds are held as investments of the Life Membership Fund:

| Par | | Approximate Market Value August 31, 1941 | Book Value (Cost) |
|---|---|---|---|
| $500 | Illinois Power and Light Corporation, First and Refunding 6%, due April 1, 1953, Interest April and October 1..... | $535.00 | 500.00 |
| 1,000 | North American Light and Power Company, 5½%, due July 1, 1956, Interest January and July 1..... | 1,020.00 | 1,000.00 |
| 300 | U. S. Treasury Bonds, 3¾%, due March 15, 1956, Interest March and September 15..... | 339.00 | 300.00 |
| 1,325 | United States of America Savings Bonds, Series D, Issued April 1, 1939, and due Ten Years Thereafter..... | 1,020.00 | 993.75 |
| 1,325 | United States of America Savings Bonds, Issued 4/1/40 and due Ten Years Thereafter..... | 1,007.00 | 993.75 |
| 300 | United States of America Treasury Bonds, 2¾%, due December 15, 1965. Interest due June and December 15..... | 333.00 | 322.47 |
| 1,000 | United States of America Treasury Bond, 2¾% due 12/15/60–65..... | 1,111.00 | 1,087.44 |
| $5,750 | | 5,365.00 | 5,197.41 |

We examined the above bonds in the vaults of the Michigan Boulevard Safe Deposit Company on September 5, 1941. All interest coupons falling due during the year were properly accounted for. The cost of savings bonds held for the Life Membership Fund has not been increased to redemption value since such increase would belong to the general fund but would not be available for distribution to that fund.

### *General*

The following insurance and fidelity bonds were carried at August 31, 1941:

Fire Insurance, Office Contents ..... $2,000
Fidelity Bond, Treasurer..... 10,000
Fidelity Bond, Business Manager..... $1,000
Fidelity Bond, Bookkeeper..... 1,000
Fire and Theft, Floater Policy, Educational Exhibit..... —
Workmen's Compensation..... —

### *Scope of Examination*

In addition to verifications previously mentioned in this report, we performed additional tests, which, while not sufficiently comprehensive to disclose all possible inaccuracies, we considered sufficient to indicate the general correctness of the figures on the attached statements.

Respectfully submitted,

SCOVELL, WELLINGTON & COMPANY.

**Secretary**

| | ACTIVE | ASSOCIATE | LIFE | HONORARY | STATE | TOTAL |
|---|---|---|---|---|---|---|
| Membership as of August 31, 1940. | 3916 | 322 | 72 | 9 | 36 | 4355 |
| Accepted | 550 | 31 | 14 | 1 | 0 | 596 |
| Reinstated | 95 | 13 | | | | 108 |
| Transferred to | 20 | | | | | 20 |
| Increase | 665 | 44 | 14 | 1 | 0 | 724 |
| Resigned in good standing | 137 | 9 | | | | 146 |
| Dropped | 136 | 11 | | | | 147 |
| Deceased | 6 | 1 | 1 | 1 | | 9 |
| Transferred from | | 20 | | | | 20 |
| Decrease | 279 | 41 | 1 | 1 | | 322 |
| Net Increase | 386 | 3 | 13 | 0 | 0 | 402 |
| Membership as of August 31, 1941. | 4302 | 325 | 85 | 9 | 36 | 4757 |

—MARY W. NORTHROP.

## Educational Director

The major responsibility assumed by the educational director is the inspection of organized courses for the postgraduate training of dietitians. Since inspection now covers a 2-year period, approximately two-thirds of the courses have been visited this year. There have been 34 inspections including the inspection of 2 new hospital courses. Visits were made to 6 institutions desiring to establish approved courses. The remainder of the inspections will be completed next year.

All applications for approval were first sent to each member of the Approval Committee for recommendations regarding inspection. In all instances, the chairman of the Approval Committee reviewed the applications before inspection. Following inspection, a report of outstanding points, and weak features and recommendations were sent to the directors of the courses, the superintendents of the institutions assuming the major responsibility, the President, the President-elect and the chairman of the Professional Education Section. It was explained that since the reports would be reviewed by the Executive Board, any changes and anticipated plans to be carried out after inspection should be submitted. After inspection the applications were again sent to the Approval Committee along with the inspector's evaluation of the training offered, a copy of the report as sent to the course director, and checked lists showing the organization and operation of the dietary department. Each committee member then indicated her recommendations. A summary of reports and recommendations was presented to the Executive Board on October 17, 1941. After careful consideration and discussion by members of the Executive Board the list of courses published herewith was accepted as approved. In one instance a course is listed as approved until a reinspection report is given at the midyear meeting of the Executive Board. This provisional approval is granted to the course in question (*Note:* Please turn to page 994),

**Training of Student Dietitians, Approved by the Executive Board, American Dietetic Association, October 1941, Based Upon Report of Courses Given 1940–41**

Hospital Courses

| COURSES (LISTED BY STATES) | LOCATION | DIETITIAN IN CHARGE | LENGTH OF COURSE—MONTHS | NUMBER IN COURSE | POST-GRADUATE CREDIT | TOTAL AFFILIATION TIME—MONTHS | REGISTRATION AND/OR TUITION FEES | ADDITIONAL EXPENSES | MAINTENANCE PROVIDED | | | CASH ALLOWANCE TO STUDENT PER YEAR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Room or Cash | Allowance Board or Cash | Allowance Professional Laundry | |
| *Canada* | | | | | | | | | | | | |
| University of Alberta* | Edmonton, Alta. | Marjorie C. Lipsey | 12 | 7 | No | 7 wks. | 5.00 | 5.00 | Yes | Yes | Yes | — |
| Vancouver General* | Vancouver, B. C. | Ethel C. Pipes | 12 | 12 | No | 3½–4 | 10.00 | 7.50 | Yes | Yes | Yes | — |
| *California* | | | | | | | | | | | | |
| University of California* | Berkeley | Helen L. Gillum | 12 | 8 | 10 U. Min. | 4 | 55.00[1] | 350.00 | No | Yes | Yes | — |
| Scripps Metabolic Clinic* | La Jolla | Helen B. Anderson | 12 | 6 | No | 8 | 5.00 | 80.00 | Yes | Yes | Yes | — |
| Alameda County | Oakland | Edith M. Ferguson | 12 | 9 | No | 7½ | 5.00 | 60.00 | Yes[2] | Yes | Yes | 80.00 |
| *Colorado* | | | | | | | | | | | | |
| Colorado General Cooperative | Denver | Mrs. Pauline D. Swanson | 12 | 8 | No | 5 | — | 10.00 | No | Yes | Yes | — |
| *District of Columbia* | | | | | | | | | | | | |
| Freedmen's | Washington | Georgetta B. White | 12 | 4 | No | — | 20.00 | 100.00 | Yes | Yes | Yes | — |
| Walter Reed[3] | Washington | Helen C. Burns | 12 | 15 | No | 1 | — | 5.00 | Yes | Yes | Yes | — |
| *Illinois* | | | | | | | | | | | | |
| Cook County* | Chicago | Millie E. Kalsem | 12 | 16 | No | 1 | 10.00 | (Carfare) | Yes | Yes | Yes | — |
| Mercy* | Chicago | Mary McKittrick | 12 | 16 | No | 1 | 10.00 | (Carfare) | Yes | Yes | Yes | — |
| Michael Reese* | Chicago | Margaret Cowden | 12 | 23 | No | — | — | — | Yes | Yes | Yes | — |
| University of Chicago Clinics* | Chicago | Ella M. Eck | 12 | 4 | Yes | — | [4] | 5.00 misc. 5.00–50.00 (room) | Yes | Yes | Yes | 180.00 room |
| *Indiana* | | | | | | | | | | | | |
| Indiana University Medical Center* | Indianapolis | Lute Troutt | 12 | 18 | Yes | — | 50.00 | — | Yes | Yes | Yes | — |
| *Iowa* | | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Iowa* | | | | | | | | | | | | |
| Iowa University Hospitals* | Iowa City | Kate Daum | 12 | 12 | Yes | — | 85.00–100.00 | — | Yes | Yes | Yes | — |
| *Maryland* | | | | | | | | | | | | |
| Johns Hopkins | Baltimore | Phyllis Rowe | 12 | 20 | No | — | 50.00 | — | Yes | Yes | Yes | — |
| *Massachusetts* | | | | | | | | | | | | |
| Beth Israel | Boston | Gertrude McDonald | 12 | 12 | No | 2¾ | 5.00 | (Carfare) | No | Yes | Yes | — |
| Massachusetts General | Boston | Marion D. Floyd | 12 | 18 | No | — | 10.00 | (Carfare) | No | Yes | Yes | — |
| Peter Bent Brigham | Boston | Mrs. Bonita S. Simmons | 12 | 8 | No | 4½ | 5.00 | (Carfare) | No | Yes | Yes | — |
| *Michigan* | | | | | | | | | | | | |
| University of Michigan* | Ann Arbor | Mable MacLachlan | 12 | 16 | Yes[4] | 1 | 10.00 | 31.50 | Yes | Yes | Yes | — |
| Harper* | Detroit | Mary M. Harrington | 12 | 12 | No | 2 | 10.00 | (Carfare) | Yes | Yes | Yes | — |
| Henry Ford* | Detroit | Evelyn Foster | 12 | 10 | No | 2½ | 10.00 | 10.00 | Yes | Yes | Yes | — |
| St. Mary's* | Detroit | Gladys Enke | 12 | 8 | No | 1½ | 10.00 | — | Yes | Yes | Yes | — |
| *Minnesota* | | | | | | | | | | | | |
| University of Minnesota* | Minneapolis | Gertrude Thomas | 12 | 15 | No | 5 | — | — | Yes | Yes | Yes | — |
| St. Mary's* | Rochester | Sister Mary Victor | 12 | 14 | No | 1 | 25.00 | — | No | Yes | Yes | — |
| Ancker* | St. Paul | Mrs. Winifred Erickson | 12 | 8 | No | 4 | — | (Carfare) | Yes | Yes | Yes | 100.00 |
| *Missouri* | | | | | | | | | | | | |
| Barnes* | St. Louis | Louise Wilkonson | 12 | 7 | No | 1½ | 10.00 | (Carfare) | Yes | Yes | Yes | — |
| St. Louis University* | St. Louis | Sister Mary Carola, S.S.M. | 12 | 10 | Yes | 1 | 5.00 | — | Yes | Yes | Yes | — |
| *Nebraska* | | | | | | | | | | | | |
| Lincoln General* | Lincoln | Leta Linch | 12 | 4 | No | 6 | 10.00 | (Carfare) | No | Yes | Yes | — |
| *New Jersey* | | | | | | | | | | | | |
| New Jersey Cooperative | Newark | Sophia Morris (Beth Israel Hosp.) | 12 | 7 | Yes | 6 | 10.00 | (Carfare) | Yes | Yes | Yes | — |
| *New York* | | | | | | | | | | | | |
| Jewish | Brooklyn | Emma A. Baughman | 12 | 6 | Yes | — | 70.00 | 15.00 | Yes | Yes | Yes | — |
| Montefiore | New York City | Lenna F. Cooper | 12 | 14 | Opt. | 1½ | [4] | 5.00 | Yes | Yes | Yes | — |
| New York Hospital | New York City | S. Margaret Gillam | 12 | 14 | Opt. | — | 10.00 | — | Yes | Yes | Yes | — |
| Presbyterian | New York City | Nelda Ross | 13 | 9 | Yes | 1½ | 75.00–150.00 | 5.00 | Yes | Yes | Yes | — |
| Grasslands | Valhalla | Rhoda Tyler | 12 | 8 | Opt. | 1 | 5.00[4] | 46.00 | Yes | Yes | Yes | — |

* Courses not inspected during 1941 but recommended for continued approval on the basis of applications submitted.

[1] For non-residents of California an additional tuition fee of $115.00 is charged.

[2] Room not furnished at affiliating hospital for 1½ mo.

[3] Student selected from a U. S. Civil Service list.

[4] Fee required if student enrolls for graduate credit.

**Training of Student Dietitians, Approved by the Executive Board, American Dietetic Association, October 1941, Based Upon Report of Courses Given 1940–41—*Concluded***

Hospital Courses—*Concluded*

| COURSES (LISTED BY STATES) | LOCATION | DIETITIAN IN CHARGE | LENGTH OF COURSE—MONTHS | NUMBER IN COURSE | POST-GRADUATE CREDIT | TOTAL AFFILIATION TIME—MONTHS | REGISTRATION AND/OR TUITION FEES | ADDITIONAL EXPENSES | MAINTENANCE PROVIDED | | | CASH ALLOWANCE TO STUDENT PER YEAR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Room or Cash | Allowance Board or Cash | Allowance Professional Laundry | |
| *North Carolina* | | | | | | | | | | | | |
| Duke University | Durham | Mrs. Elsie W. Martin | 12 | 6 | Opt. | — | 10.00 or 60.00 | — | Yes | Yes | Yes | — |
| Watts | Durham | Tiphaine Burgess | 12 | 6 | No | 1½ | 30.00 | — | Yes | Yes | Yes | — |
| *Ohio* | | | | | | | | | | | | |
| Christ | Cincinnati | Wilma Robinson | 12 | 6 | No | 3 | 10.00 | 10.00 | Yes | Yes | Yes | — |
| Cincinnati Cooperative | Cincinnati | Marjorie Hall | 12 | 12 | No | 23 wks. | 13.00 | 15.00 | [5] | Yes | Yes | — |
| Good Samaritan | Cincinnati | Sister Romuald | 12 | 9 | No | 1½ | 10.00 | 11.00 (Carfare) | Yes | Yes | Yes | — |
| University Hospitals* | Cleveland | Marie L. Hines | 12 | 13 | Yes | 1 | 25.00 | 9.00[6] | Yes | Yes | Yes | — |
| Starling-Loving | Columbus | Mrs. Martha N. Lewis | 12 | 8 | Yes | 4½ | — | 25.00 | Yes | Yes | Yes | — |
| Miami Valley | Dayton | Mrs. Alta B. Hirsch | 12 | 8 | No | — | 10.00 | 30.00 | Yes | Yes | Yes | — |
| *Oklahoma* | | | | | | | | | | | | |
| St. Anthony's* | Oklahoma City | Sister M. Margaret Mahan | 12 | 6 | No | 7 wks. | — | — | No | Yes | Yes | — |
| University of Oklahoma* | Oklahoma City | J. Marie Melgaard | 12 | 8 | No | 1¾ | 10.00 | 25.00 | No | Yes | Yes | — |
| *Oregon* | | | | | | | | | | | | |
| Oregon State | Portland | Elizabeth Baldwin, 411 Edwards Street, Newberg, Ore. | 12 | 4 | No | — | 10.00 | 50.00 | Yes | Yes | Yes | — |
| *Pennsylvania* | | | | | | | | | | | | |
| Jewish** | Philadelphia | Henriette Pribnow | 12 | 8 | No | 2 | 10.00 | 15.00 | Yes[7] | Yes | Yes | — |
| Mount Sinai | Philadelphia | Lucille M. Refshauge | 12 | 6 | No | 1½ | 10.00 | (Carfare) | No | Yes | Yes | — |
| Philadelphia General | Philadelphia | Elizabeth Miller | 12 | 4 | No | 1½ | 10.00 | — | Yes | Yes | Yes | — |
| Shadyside | Pittsburgh | Irene L. Willson | 12 | 3 | No | 1 | 35.00 | (Carfare) | Yes | Yes | Yes | — |
| Western Pennsylvania | Pittsburgh | Charlotte Addison | 12 | 8 | No | 2½ | — | (Carfare) | Yes | Yes | Yes | — |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tennessee* | | | | | | | | | | | | |
| Vanderbilt University | Nashville | Maniza Moore | 12 | 10 | No | 1 | 10.00 | 60.00 | ½ time | Yes | Yes | — |
| *Utah* | | | | | | | | | | | | |
| Dr. Groves' Latter-Day Saints | Salt Lake City | Katharine Bielby | 12 | 9 | No | 3½ | 10.00 | 10.00 | Yes | Yes | Yes | — |
| *Virginia* | | | | | | | | | | | | |
| Medical College of Virginia | Richmond | Kathryn Heitshu | 12 | 10 | No | 2 wks. | — | 30.00 | No | Yes | Yes | — |
| *Washington* | | | | | | | | | | | | |
| Seattle Course for Hospital Dietitians | Seattle | Mary W. Northrop (King Co. Hosp.) | 12 | 14 | No | 1 | 28.00 | 65.00 | Yes | Yes | Yes | — |
| **Administrative Courses** | | | | | | | | | | | | |
| *Florida* | | | | | | | | | | | | |
| Florida State College for Women | Tallahassee | Anna M. Tracy | 10 | 4 | Opt. 6 hrs. | — | 20.00[4] | 15.00–25.00 | Yes | Yes | Yes | 50.00 |
| *Massachusetts* | | | | | | | | | | | | |
| Women's Educational and Industrial Union | Boston | Mrs. Quindara Oliver Dodge | 12 | 8 | Yes | 8 wks. | 15.00 | 30.00 | No | Yes | Yes | — |
| *Oklahoma* | | | | | | | | | | | | |
| Oklahoma Agricultural and Mechanical College* | Stillwater | Daisy I. Purdy | 12 | 6 | 6 hrs. or more | — | 10.00[4] | 25.00 | Yes | Yes | Yes | 110.00 |
| *Texas* | | | | | | | | | | | | |
| University of Texas* | Austin | Rosalie S. Godfrey | 9–12 | 11 | Opt. 3–6 hrs. | — | [4] | — | Yes | Yes | No | 360.00–550.00 |
| *Washington* | | | | | | | | | | | | |
| University of Washington | Seattle | Margaret E. Terrell | 12 | 12 | Yes | 2 | 25.00 | — | Yes | Yes | Yes | 120.00 |
| **Food Clinic Courses** | | | | | | | | | | | | |
| *Massachusetts* | | | | | | | | | | | | |
| Boston Dispensary | Boston | Frances Stern | 12 | 4 | No | 2[8] 3[9] | — | — | No | No | Yes | — |

* Courses not inspected during 1941 but recommended for continued approval on the basis of applications submitted.

** Accepted as approved until reinspection report is given at midyear meeting.

[5] For seven students only.

[6] Hospital service charge.

[7] Room is provided for four students only.

[8] Hospital affiliation.

[9] Other affiliation.

pending department reorganization. Two new hospital courses inspected in June 1941 were accepted as approved.

Inspection of the courses included a survey of the organization and responsibilities of the dietary department. Evaluation of each student course was made with the director of the course. When concerned with cooperative courses, a conference was held with the group or with each person participating in the training. Whenever possible, time was spent with assistant dietitians. This was arranged particularly when these dietitians were new in their positions or when they had not previously assisted in the training of student dietitians. As frequently as possible, a conference was held with the student dietitian group and with but few exceptions, the director of the course was present. In the majority of instances, the inspector met the superintendent or administrator of the hospital or other organization. On the whole, superintendents were very cooperative and exceedingly appreciative of the fact that the dietary department had assumed a definite obligation in training dietitians for the profession. After the evaluation, outstanding or strong points, weak points and recommendations for improving the course were discussed with the director. The general attitude of directors and superintendents toward inspection was excellent. In fact, they welcomed inspection for they felt it offered recognition and opportunity for progress.

The inspection itinerary was planned to include as many meetings of local and state dietetic associations as possible. The educational director was official representative of the Association at nine state meetings. She spoke at two meetings of local dietetic associations. She appeared on the program of the following associations: Illinois Conference of Catholic Hospital Association, Catholic Hospital Association, and American Association for the Advancement of Science. Since it has been suggested that the educational director should visit as many colleges offering training for dietitians as possible, many such visits were made.

Many requests for outlines of approved courses have been received and several new courses are now being organized. Preliminary applications have recently been received from 8 courses. In all probability some of these new courses will be inspected for approval during the coming year.

The educational director has also assisted the chairman of Educational Exhibits. The Association has exhibited at the annual meetings of the following associations: Chicago Dental Society, Wisconsin Dental Society, American Association for Health, Physical Education and Recreation, Catholic Hospital Association, American Hospital Association, American Dental Association, and Conference of Food Service Directors. An exchange booth was arranged with the American Home Economics Association. A number of exhibits were loaned to state dietetic associations and other groups requesting charts.

It has been stated that the American Dietetic Association Membership Committee is really our state and national board of examiners and is setting up professional standards in all of its work for the entire membership. It has been suggested, too, that the educational director could provide continuity and consistency in membership policies. The work of the educational director in this respect has been divided into the following duties: supervision of the checking of official college transcripts of credits, interpreting records, verifying references and endorsements, summarizing applications and indicating academic deficiencies, and answering questions in regard to membership requirements.

Assistance has been given to the four section chairmen. At the same time these chairmen and other officers of the Association have given invaluable assistance and advice.

As educational director, it has been

especially gratifying to me to work with the members of the Association.—GLADYS E. HALL.

## Journal Editor

In the first issue of the JOURNAL, June 1925, its avowed purpose, as jointly stated by the editor, Florence H. Smith, and the president, Dr. Ruth Wheeler, was that it be "devoted to the advancement of the profession." They continued: "If it shall supply the very evident need for such a periodical . . . it may in time grow into a monthly. Since its inception the JOURNAL has slowly approached this goal, from 1925 to 1932 as a quarterly, from 1933 to 1938 as a bimonthly, and from 1938 to 1942 on a 10-issue per year basis. Beginning in January 1942 volume 18 will contain 12 issues.

A survey of the membership this year has indicated approval of a new objective for the JOURNAL: namely, that it be a source of income for the Association. It is chiefly with this in mind that changes in format and number of issues have been authorized for 1942. If we take a realistic attitude it follows, *a priori*, that a gradual change in editorial policy must keep pace with such demands. Since JOURNAL circulation at present cannot be the fulcrum on which advertising rates can appreciably be raised, the content must more and more reflect those interests of the dietitian which are concerned with administration—in effect, the purchasing power of the individual member.

This, in brief, was the sentiment expressed during discussions of the Executive Board at the Los Angeles meeting and further confirmed at the New York meeting. Change in format, then, along with appropriate change in editorial policy, unquestionably brings the JOURNAL out of its, shall we say, past neutrality, once enveloped in a "take it or leave it" Quaker gray, into the open market as attractive food and equipment advertising media.

An abrupt change in policy is not usually effected overnight, or from one issue to the next. However, when we compare a given volume with immediately succeeding volumes, we find that volume 15, in 1939, with all papers and reports presented at the annual meeting excluded, carried 39 papers based on original research or the clinical application of research. In 1940 the figure had dropped to 29, and in 1941 a rough estimate indicates a total of 22 or a little more than half of that published in 1939. There has been no reduction in total pages per volume, rather has there been an increase. But whereas many issues were once almost exclusively concerned with what might be termed the "clinical application of research rather than the administrative and practical problems of food production" (*see* p. 791 of the JOURNAL for November 1939), in 1941 not a single issue has failed to carry at least two or three articles on the just mentioned practical problems.

Thus the transition period toward the more technical, mechanical, or shall we say, practical treatment of aspects of our interests has already been rather strikingly indicated in the JOURNAL's content during this and the preceding year, in contrast to 1939. Another change in policy designed to appeal to the advertiser is the advancing of the advertising pages up to the leading articles. This was duly authorized by the Executive Board in October 1937 but did not become effective until October of this year.

And so I return to that first stated objective of the JOURNAL, "advancement of the profession", which calls for a re-weighing of the words "advancement" and "profession" so often loosely used. At this point it seems more direct to take the prefix "advance" in its noun and verbal sense: namely, growth, elevation, betterment; or in its verbal sense, to dignify, even to exalt, also, to rise and even to prosper. Now the word profession loosely connotes an occupation as well as a vocation or a "calling", if you feel so disposed, but in the strictest sense profession implies an occupation requiring spe-

cial knowledge and training in some field of science or learning. And when we get back to those fundamentals, "science" and "learning", we run into the co-attributes of depth, a penetrating knowledge going beyond the superficial or the obvious, since a knowledge of science implies that we not only know what to do but why we do it.

This recapitulation supports the belief that none in the Association would have the JOURNAL lose sight of that earlier objective—advancement of the profession. This and our newly assigned objective—advancement, as it implies "a furnishing of money", need not be irreconcilable. But the earlier objective must always be sharply in focus.

And so, while we walk the editorial tightrope of immediate practicality, and advance as it implies "a furnishing of money" and "to prosper", we will carry a balancing parasol of other kinds of advancement sufficient, we hope, to forestall a sudden drop into the sawdust of a scientific and professional nonentity.

Acknowledgment is again due to the voluntary services of Colleen Cox Hambleton and Quindara Oliver Dodge for the abstracts under the Current Literature section and to Mary Northrop, who has cultivated the Have You Heard? section, and to those members of the Journal Board who have so promptly and efficiently assisted the editor on matters of policy.—MARY P. HUDDLESON.

## Administration Section

*Chairman's Summary*

The work of the Administration Section as outlined at the beginning of the year, at the suggestion of the President and with the support of the chairman, was kept to a minimum number of projects for two reasons. The first was the desire to capitalize on the work already in progress on several projects and, if possible, to complete them. The second was to stand ready to accept, as professional obligations, any particular jobs in the administrative field which might be brought to our attention in the national defense effort.

Four projects have been under consideration during the current year. The first, on kitchen equipment, under the chairmanship of Kathleen Hamm, was an outgrowth of a 1938–39 study, the findings of which were published in this JOURNAL for November 1940. Using the data already secured as a basis, the committee set about to collect specific information on major items of fixed equipment used by dormitories, hospitals, and school cafeterias which would be helpful in planning new or remodeling old units. This committee report, which will appear later in this JOURNAL, will classify data under these three types of units, charting under each the information received on each piece of equipment studied.

The second project, Problems of Public Institutions, with Mame T. Porter as chairman, was a continuance of a 1939–40 project initiated to survey the particular needs of members actively engaged in group feeding programs in public institutions. Three problems were under consideration: the preparation of a dietary manual for state institutions, which has been completed; a study of low cost food allowances for type diets, and a study of civil service requirements for, and qualifications of those employed in the dietary departments of state institutions.

Quindara Oliver Dodge has been chairman of a third project, Administration Terminology, an attempt to define, with academic precision, terms commonly and loosely used in administration. The committee listed current terminology and proceeded to collect information on accepted usage from authoritative sources. The committee will make recommendations later based on their findings and ask the cooperation of the membership in revising their professional patter to conform.

The fourth project, under the guidance of Lucille M. Refshauge, had as its ultimate ob-

ject the revision of *Quantity Food Service Recipes*. From the chairman's report it is apparent that if standardized recipes are published by the Association, some acceptable means of standardization must be considered and adopted. Perhaps this is a job which cannot be accurately and adequately done on a voluntary or project basis. Until such decisions are reached, little progress can be expected.—KATHARINE M. ANSLEY.

## Community Education Section

*Chairman's Summary*

This has been a year of growing demands for service by dietitians and nutritionists in the nation-wide nutrition education program. If my report seems not to reflect the splendid work being done by members of this Association interested in community nutrition education, I believe it is because chairmen of state and local dietetic associations have been too busy to report their activities to me.

The section has encouraged the states to work on their own projects, giving them suggestions of types that seemed worth while. There have been only two national projects which the American Dietetic Association continued from last year: one, the development of manuals for rural school lunchroom managers, headed by Mary Spalding, nutritionist, Massachusetts Department of Health; the other, by Blanche Bohach, Rochester General Hospital, whose purpose was to collect descriptions of unusually successful methods and devices used in community nutrition teaching in the affiliated state associations.

Miss Spalding reports Ohio, Virginia, Illinois, Michigan, Tennessee, Maryland, New York, Kentucky, Rhode Island, and Massachusetts as having done excellent work, manuals having been completed or trial material to be used in such manuals having been prepared for display at the St. Louis convention. Other reports may arrive to supplement the above. Because rural and small city schools are centers for community education, the section felt that it could make a real contribution to state-wide community nutrition needs by preparing these manuals so that managers of school lunchrooms might thereby be assisted in their educational program directed toward raising food standards in homes and public eating places in the community. We hope this work will continue until several excellent manuals of this type are generally available at minimum cost.

Miss Bohach reports but four states—Virginia, Connecticut, New York and Pennsylvania—as participating in her project. More effort should be made to collect data on exceptionally good work in nutrition education in all states, and to publish this material in suitable journals.

The following are some of the activities that have been reported either to Miss Bohach or to the section chairman:

A compilation of lists of reliable educational material in the field of food and nutrition was undertaken by the Illinois, Rhode Island and Tidewater-Virginia associations.

Radio scripts were collected by a number of associations to supplement those available for loan from the Business Office. The Columbus (Ohio) association presented six radio broadcasts during the spring and summer. The New York association presented a weekly marketing broadcast during the year.

Special exhibits were prepared by Illinois, Rhode Island, and Connecticut, the last named having a series of three exhibits for loan to interested organizations.

The California association prepared a series of articles which were published in their state parent-teacher journal.

The Tidewater-Virginia association conducted a class in canteen work for negro women to fit them to help in times of disaster.

The Pennsylvania association sponsored a study of eating habits in school lunchrooms.

The Miami Valley (Ohio) association sponsored an excellent nutrition institute for the public in Dayton and Montgomery County last spring.

The Virginia association sponsored a survey

of nutrition needs in various parts of the state, prepared posters and leaflets, and arranged programs to promote interest in nutrition in the state.

As a contribution to the nation-wide nutrition program, four committees have been at work this year preparing bibliographies as follows: Normal Nutrition, Alice H. Smith; Adequate Diets at Minimum Cost, Mabel Stimpson; the Role of Nutrition in Health Education, Marietta Eichelberger; and the Role of the School Lunch in the Health Education Program, Eva Donelson. These bibliographies were on sale at the St. Louis meeting.

Melva Bakkie has been the representative of this section of the Association on the National Council for Mothers and Babies which meets periodically in Washington and publishes a monthly news leaflet entitled "Clearing House Notes."

Mrs. Alice H. Smith of Cleveland has served as chairman of the joint committee of this Association and the American Home Economics Association on Minimum Qualifications for Nutritionists in Health Agencies. This report will be available later.

It has been a great privilege and pleasure to have served as chairman of this section during the past two years. Now that nutrition education has been given such prominence in the national defense program we must all do our part to see that this program in the various states is not planned merely as an emergency program but as a long range program, taking every advantage of public interest in carrying it out. It is my hope that all state and local associations will actively assist their state and county Nutrition for Defense Councils in all possible ways. Careful consideration should be given to all community education projects adopted so that they may fit into the broad plans of these defense organizations.—MARTHA KOEHNE.

## Diet Therapy Section

### *Chairman's Summary*

At the New York convention, the chairman interviewed members and learned about projects which they would be interested in studying in order that professional standards in the field of diet therapy might be advanced. As a result, five projects were sponsored by the section. There was rather general agreement that the greater number of abstracts in the JOURNAL would make the compilation of a bibliography on current articles unnecessary.

In recent years therapeutic diets have been analyzed for adequacy. Both the diet for peptic ulcer and the 1000-calorie diet for obesity used in many hospitals and clinics were found to be inadequate. This year the various low-fat diets used for cholecystitis, liver disease, and obesity were studied with regard to their content of vitamin A and carotene. Also the literature was reviewed which dealt with the capacity of the human organism to convert carotene into vitamin A and with the effect of the ingestion of mineral oil on the absorption of carotene and vitamin A.

Another survey of dietetic practice dealt with the instructions given to prenatal and lactating women and the methods of interpreting nutrition teaching. Complications of pregnancy were also considered. Diets served to patients with gastro-intestinal diseases were evaluated on the basis of information collected by last year's committee, and standardized lists of foods commonly used when the normal diet is modified for the treatment of these patients have been adopted. This was done in cooperation with the committee, which for a second year has continued to compile a glossary of dietetic terms in an effort to overcome the usual confusion regarding terminology used in the practice of gastro-enterology. Many additional terms necessary to the dietitian's vocabulary have been defined.

Since enriched bread and flour have been introduced into the diets of the American people as a measure of health defense, different varieties of wheat flours, wheat germ products, and enriched flour were evaluated comparatively. Probable daily consumption from these sources was also compared with recommended dietary allowances of the vitamin B-complex, calcium, and iron.

Each of the sub-committees contributed to the growing knowledge regarding therapeutic diets and advanced dietary standards, which will enable the dietitian and the nutritionist to do her job more thoroughly and intelligently.—DOROTHY DUCKLES.

*Committee Report*

*Compilation of a Glossary of Dietetic Terms.* The continuation of the project during this year permitted a study of additional terms and provided an opportunity for acquainting a large number of members with the contents. State diet therapy section chairmen were asked to cooperate by organizing committees to work with the national chairman. A list of terms, referred to as the Supplement to the Glossary of 1940, and a guide for preparation of material were sent to state committees in January. When this information was collected in February, tentative definitions of the terms were prepared. Sets of this material were mimeographed and sent from the Business Office to all state diet therapy section chairmen, to directors of all approved hospital dietetic training courses and to an additional group of members qualified to judge the accuracy and value of the work. Thus more than two hundred members and their associates were given an opportunity to make comments and corrections. There was nearly unanimous approval of the study as a whole. The comments and suggestions were both intelligent and encouraging. Two members disapproved of the entire project and one questioned the inclusion of certain terms not strictly related to the dietetic field.

The assistance and cooperation of the members who returned the Glossary with comments and corrections are gratefully acknowledged. The following state committees contributed inestimable assistance: Ohio, Dorothy McCrory, chairman; New York, Lois Dorr, chairman; Illinois, Portia Morris, chairman; Missouri, Mary Catherine St. John, chairman.—SISTER JEANNE D'ARC HURLEY, C.S.J., *Chairman.*

## Professional Education Section

*Chairman's Summary*

The work of the section has progressed this year under the direction of three groups: (1) the six sub-chairmen of the projects whose reports have been completed; (2) the three Approval Committees assisted by the educational director and the chairman of the Professional Education Section; (3) the state professional education section chairmen.

Five projects have been in progress during this year, three of which are new and two continued from the previous year. The new projects were planned to aid those responsible for planning curricula and determining content of courses for the college student preparing to enter the dietetic field, and for the directors of approved courses. Much interesting information has been forthcoming from these studies, all of which are to be continued next year. The educational requirements for dietitians teaching student nurses and state board examinations in dietetics are two closely allied problems that are of interest to many of the state associations. Reports of projects, one begun last year and completed this year, and a new one begun this year, have brought much valuable information to those who are especially interested in these two questions. That entitled, Collection of Illustrative Material Used in Teaching Nutrition to Student Nurses, is now complete.

As indicated in the report of the educational director, many of the approved courses were visited this year and all of the course outlines were carefully studied by members of the Approval Committees, assisted by the educational director and the chairman of the Professional Education Section. Members

of these committees were: Hospital Courses, Adeline Wood, chairman, Dorothy Proud, Lucile Waite; Administrative Courses, Katharine Harris, chairman, Fern Gleiser, Cecilia McCarthy; Food Clinic Courses, Dorothea Fletcher Turner, chairman, Mabel W. Perry, Lillian Giebelstein.

The professional advancement of the individual members of the Association in 1940–41, as in past years, has been one of the major interests of the Professional Education Section. The many fine programs of work planned and carried out by the state professional education sections indicate the extent to which these groups have developed this objective. Included in their activities have been the sponsoring of refresher courses; keeping abreast of the times by members attending seminars in nearby colleges and universities; setting up standards for dietitians in public institutions; suggesting questions for nurses' examinations; compiling illustrative material for teaching nurses; organizing panel discussions of pertinent subjects; and cooperating with outside agencies, such as medical and nurses' organizations, in sponsoring institutes on nutrition.

The large number of persons participating in the activities of the Professional Education Section has been gratifying to those chairmen responsible for carrying out the section programs.—BESSIE BROOKS WEST.

### *Committee Reports*

*A Study of the Needs and Responsibilities of the Dietitian in Service.* The purpose of this project was to secure data relative to the needs of the dietitian as observed by members of the profession after five years of experience. Using Margaret Gillam's report, A Survey of the Hospital Dietitian and Her Job, as a basis, a check-list was organized and sent to those members who have been active in the field of nutrition for five years. Of the 140 check-lists sent out, 54, or 38% of those receiving the check-list have responded. This check-list was arranged in order to determine, principally, the adequacy of both the academic and the student training of the dietitian in the light of her present responsibilities, to permit a study of her present difficulties and to facilitate suggestions, based on the dietitian's own experience, which would make the adjustment of the dietitian easier in the future.

In analyzing this material, the various hospitals reporting were classified according to bed capacity as follows: Group I, 52–200; Group II, 200–500; Group III, 500–1450; and Group IV, which includes institutions and organizations other than hospitals.

It is interesting to note and to recognize significant difficulties and suggestions which have been reported from the hospitals in the various groups. Observations frequently indicate a lack of understanding with the nursing department. Employee problems such as low salary scale, wide span of working hours, type of employee and rapid labor turnover are findings in several of the hospitals. Other difficulties of importance are inadequacy of equipment and inefficient arrangement of equipment in the dietary department.

Very helpful suggestions were made for improving the college training and student training courses. Several agreed that more practical work should be required in the college training period and that the students in the junior or senior year should receive practical experience during the summer months in a hospital dietary department. Another significant request was that the courses in diet and disease be improved and that these be taught by persons with hospital experience. There is need for more information on personnel management and for more training in care, operation, selection and maintenance of equipment.

Equally fine suggestions were offered for improving the student training courses. Important recommendations here are: more training in food cost accounting as applied to a hospital; practical experience in large quantity cookery; more opportunities for the purchasing of food and specific instructions

as to the maintenance, operation and selection of equipment. Also, the committee found that members stress the importance of guidance in personnel management during the student training period. More experience in teaching student nurses, as well as other groups, is advised.

With reference to suggestions for improving hospital organization as far as the dietitian is concerned, mention of the low salary scale and the need for regulation of working hours of the dietitian appears in the reports from several hospitals. Closer contact with administrators and department heads to discuss problems, and suggestions for improvement and progress of the institution are other factors to be considered.

The committee therefore recommends that this project be continued another year to obtain more informative material. It is hoped the results of this study will be of value both in the academic and the student training of those entering the field of nutrition.—GLADYS ENKE, *Chairman.*

*A Study of the Content of the College Courses Now Offered to Students Preparing to Enter the Field of Dietetics.* This report is to be mimeographed and will be available through the Business Office of the Association.—GRACE GODFREY, *Chairman.*

*Educational Requirements for Dietitians Teaching Student Nurses.* This report has been mimeographed and will be available through the Business Office of the Association.—MARIE L. HINES, *Chairman.*

*Collection of Illustrative Material Used in Teaching Nutrition to Student Nurses.* The work during the past year was concerned chiefly with the following objectives:

(1) Obtaining additional material and information to add to the collection begun in 1940. Questionnaires were again sent to state professional education chairmen to be distributed in their respective states.

(2) Reclassification or division of material according to subject matter:

1. Teaching of Normal Nutrition
2. Nutritive Value of Specific Foods
3. Meal Planning and Food Selection
4. Vitamins
5. Digestion
6. Modification of Diet During Period of Growth: (a) Pregnancy and Lactation; (b) Infancy and Childhood.
7. Modification of Normal Diet in Disease
8. Moving Pictures
9. Public Health Aspects of Nutrition and Diet Therapy: (a) Nutrition Clinic; (b) Budgeting and Food Economies; (c) Special Diets at Low Cost.
10. Food Models
11. Miscellaneous—material unclassified

(3) A general source index and key, indicating material by number and referring to index for source of material, arranged in alphabetical order.

1. Professional, College and Research Institutions
2. Government and National Agencies
3. Commercial Organizations and Life Insurance Companies

(4) Obtaining information on the date of publication, cost of material, quantities available and availability outside the state. This information was included along with the subject classification.

(5) Evaluation of material: The committee sent the compiled list to several nutritionists and dietitians actively engaged in teaching nurses with the request that they retain on the list the material believed to be valuable.

There is much so-called commercial propaganda today and the importance of using great care and discrimination in the selection of material should be stressed.

With the rapid progress and new discoveries in nutrition, such a collection as this

will rapidly become obsolete. Thus, it should be treated like a bibliography or perpetual inventory and be kept up to date.—ANNA M. LIGHT, *Chairman.*

*Revision of Suggested Questions for Nurses' Examinations in Normal Nutrition and Diet Therapy.* Because the present questions no longer cover the recent developments in nutrition, a revision is necessary.

The first work being done by the committee is a review of the last publication (1937). The committee members have been asked to make additions to these questions. The committee has also asked the Board of Nurse Examiners in each state for any available questions which have been used.

No definite date has been set for the completion of this project.—LUCILLE E. FRECH, *Chairman.*

## Journal Board

*October 19, 1941.* The Board met at 8 p.m. with Dr. Helen S. Mitchell presiding and the following members of the Board in attendance: Ella M. Eck, Rosalie S. Godfrey and Mary W. Northrop; also present were the president, president-elect, the incoming president, the editor, business manager, and treasurer of the Association.

After some discussion as to the difficulties involved in the assignment of a chairman, owing to replacement appointments, it was moved and carried that this office be filled in accordance with the printed date-line, rather than through absolute seniority.

The chairman read the duties of Journal Board members and asked for comments regarding the content of the JOURNAL during the past year and suggestions for the coming year.

The leading articles were first discussed and in order to assure early publication of all papers presented at the annual meeting which are acceptable, it was recommended that when space limitation became a controlling factor, and with the consent of the author, certain of these papers be condensed and appear editorially or under the Current Comment section.

The Have You Heard? column which had been continued experimentally during 1941, was again considered, and it was moved and carried that this section be omitted in 1942.

It was felt that considerable curtailment could be effected under the News Notes, limiting listing of officers to the elective offices. It was emphasized that nutrition projects of state and local associations in relation to defense activities, community education, refresher courses, etc., should be given greater prominence. All resignations and appointments of members were considered important, also state programs, but details of social affairs were believed to be of little general interest.

The Current Literature and Book Review sections were strongly commended.

It was agreed that more active participation on the part of Journal Board members, elected and appointed officers of the Association, and others, would strengthen the Editorial and Current Comment sections. It was suggested that each Journal Board member be responsible for contributing or soliciting an article at time assigned.

A report of the Format Committee of the new JOURNAL was presented by Margaret Cowden, chairman, and accepted by the Board.

In discussing JOURNAL advertising the Board recommended that hereafter all advertising copy in the JOURNAL be handled entirely through the Business Office and not routed through the editorial office as in the past. It was recommended that a member of the Journal Board who is located near the Business Office be appointed a member of the Investigation Board. When problems regarding advertising copy arise they will be referred to one or more members of the Investigation Board.

## Executive Board[1]

*Hotel Jefferson, St. Louis, October 17–18, 1941.* Members present: Mary I. Barber, Nelda Ross, Nell Clausen, Mary W. Northrop, Margaret Cowden, Katharine M. Ansley, Dorothy Duckles, Bessie Brooks West, Martha Koehne, Gladys E. Hall, Dorothy I. Lenfest and Mary P. Huddieson.

The meeting was called to order and the President read a letter from Charlotte Raymond, dietitian appointed to the Red Cross-Harvard Medical Unit in England. Miss Raymond wrote of wartime conditions in England and the activities of the Red Cross. Reading of the minutes of the previous meeting was dispensed with. A report of all actions taken by mail was read and accepted.

Miss Ross announced the acceptance of two state associations for affiliation, Arizona and New Hampshire. She presented the problem of handling expenses of representatives of the A.D.A. speaking at state meetings, suggesting a plan to be referred to the House of Delegates.

In her report as vice-president and chairman of the House of Delegates, Miss Clausen stressed the importance of continuing registration of dietitians for defense work in the states. She read the following reports presented to the House of Delegates: Organization of House of Delegates; Nominating Committee; Compiling a Code of Ethical Procedures for Dietitians; and Suggested Procedures for the president-elect, vice-president and chairman of the House of Delegates, delegates and state presidents.

Miss Northrop's report as secretary was read and accepted.

Miss Hall's report as inspector of approved training courses was read and accepted. Miss Hall's library report stressed the need for more material from approved course directors and other department heads. It was suggested that the state presidents be asked to assist in the collection of material for the library.

In Miss Hall's discussion of her general activities in handling the section work she emphasized the necessity for projects being outlined early and the complete schedule adhered to in order to ensure that the reports appear in the December JOURNAL.

The treasurer's report was read and accepted and the budget for the following year presented. It was moved and carried that the policy of recording British dietitians as having resigned in good standing be continued for the duration of the war.

The business manager's report was read and accepted.

The report on Minimum Qualifications for Nutritionists in Health Agencies was accepted with the recommendation that Miss Ross appoint a committee to study it in relation to the requirements for membership in the Association. It was suggested that a committee be appointed to work out a rating scale to be used in evaluating the training and experience records of applicants for membership.

The reports of the committees on Professional Relations and Military Status were read and accepted. The request of Eloise Davison for material which would be of use in the civilian defense program was read.

Eleanora Sense read the report of the Press Relations Committee, pointing out that during 1941 a full year program had been developed.

When the recommendations of the joint committee with the American Home Economics Association on the school lunch had been reviewed, it was suggested that this committee be requested to present suggestions as to how their recommendations could be put into effect.

It was suggested that the educational director and the chairman of the Professional Education Section be members of the Membership Committee.

[1] Condensed reports of the sessions of the Executive Board, the House of Delegates, the Business Meeting, and Journal Board, appear in this JOURNAL. The complete notes of these meetings are on file in the Business Office of the Association.

After passing on individual applications for membership, the Board referred the general problems of standards to the Membership Committee for the action of the incoming Board.

Section reports and those of the convention and program chairmen were read and accepted.

## House of Delegates

*St. Louis, October 19, 1940.* The House of Delegates was called to order by the chairman, Nell Clausen, at 10 a.m. Those present included all delegates listed on pp. 688–690 of the August-September JOURNAL with the following additions and exceptions: Arizona, Frances MacKinnon; Delaware, Anna Gaventa (alternate); South Carolina, Celia P. Swecker; Utah, Emily J. Leigh (alternate); Washington, Ruth Forsberg; and West Virginia, Adelaide Weber, president of state association. There was no representative from Florida, Kentucky, Montana, New Hampshire, or Oregon.

The chairman called on the President, Mary I. Barber, to speak to the House.

*Address of President.* It gives me great pleasure to meet with the members of the House of Delegates. Under Miss Clausen's leadership your body has truly become a part of the national Association. I foresee an ever enlarging scope of activities for this group.

The responsibilities which are yours have increased during the past year. As I see your functions, the most important is the interpretation of national policies to your state associations. The delegate should always be selected with great care. She should be the person best suited to represent your local interests at the national meeting and have sufficient influence at home to guide the programs.

A national association can be strong only if its affiliated state associations are strong. One annual meeting does not offer time enough to build up a feeling of complete understanding of our purposes. The delegate is the person to follow through and see to it that we are all working in harmony.

Your agenda is comprehensive and with two meetings you will go home with much inspiration for the coming year.

As President of the American Dietetic Association I wish to thank each of you for your contribution to your professional association and for your cooperation with Miss Clausen and me.

The chair introduced Frances MacKinnon, delegate from the newly affiliated Arizona association, and then reported that New Hampshire had also been accepted and West Virginia had applied for affiliation during the year.

It was moved and carried that the reading of the minutes of the last meeting be dispensed with.

The chairman read a report of the accomplishments of the House of Delegates since the 1940 meeting.

The chairman called for the report of the president-elect and affiliation chairman, Nelda Ross, who spoke as follows:

As affiliation chairman, I have handled all requests for national representatives to speak at state meetings. This year there were 29 requests, 26 of which were filled. Miss Hall was able to visit many state meetings while on inspection tours, thus reducing the number of visits required of other officers.

In arranging for national representatives, two problems present themselves. First, many state associations hold their meetings on the same dates. This year there were 8 on April 24 and 25. This situation causes conflict in scheduling speakers for the meetings.

Second, there has been no uniformity in the amount of money to be contributed by state associations towards the expenses of the speakers. It would seem that the number of members should be the criterion. However, this year 10 associations with memberships ranging from 32–580 offered to pay $20 to $35; six with from 14–150 members, $10 to $15; one association with 63 members, $60, and another with 58 members, $50. Several others said they would pay the speaker's expenses.

I have given considerable thought to this problem and have discussed with other members the possibility of some plan whereby each association would contribute in proportion to the number of members, and each might have a representative at some time during the year.

I would like to present the following plan for discussion: that the travel schedules of the educational director and certain other officers be made available to the state associations at an

early date; that each association arrange to request a representative for a time when the representative is scheduled to be in or near the state; that neighboring associations try to plan their meetings consecutively so that one representative can cover several of their meetings on the same trip; that expenses be pro-rated according to membership; that a certain percentage of the educational director's expenses be charged to inspection, the rest pro-rated for payment by state associations.

This plan would often reduce the expenses to an amount less than the association offered to pay this year. If an association wanted a speaker other than the representative scheduled for that part of the country, or desired a representative at a time other than scheduled, the state association would then be responsible for the speaker's entire expenses. There is a member of the Executive Board in many sections as set up by the House of Delegates. If an association wished to reduce expenses, it could request the nearest Board representative, or perhaps an ex-member, or a member of one of the committees.

Some definite plan that would standardize the contributions of the associations on the basis of membership, would be helpful both to state presidents and to the president-elect.

The chairman called for the report of the Committee on Compilation of a Code of Ethical Procedures for Dietitians, Mable MacLachlan, chairman, and the Committee for Studying Organization of the House of Delegates in Other Organizations, Blanche Bohach, chairman.

Miss Bohach stated that the committee would recommend that a procedure committee of the House of Delegates be appointed to set up a tentative program which could be presented to the state associations for their consideration and that on this committee there be a member or members who have served on the Executive Board and are familiar with their problems.

The report of the Committee on Invitations was presented by Maxine Turner, chairman. This committee had made an extensive study of the matter of location for the annual meeting and had prepared a map showing the distribution of members in the different divisions of the country. From this map conclusions had been drawn as to how frequently the annual meeting should be held in each of these nine divisions. Invitations for the 1943 meeting were reported from Columbus, Cincinnati and Washington, D. C., and Jennie M. Barton presented a cordial invitation to the Association to meet in Pittsburgh in 1943. Miss Lenfest was called on to speak to the House concerning the facilities available in Pittsburgh. The Committee on Invitations recommended that the 1943 meeting be held in Pittsburgh.

The chairman asked that in the future all invitations for the convention be addressed to the chairman of the House of Delegates and sent directly to the Business Office.

The chairman of the Nominating Committee, Mable MacLachlan, presented the following slate, one person to be elected as chairman and three on the Nominating Committee: chairman, Dorothy Milavetz and Elizabeth Perry; and Nominating Committee—Elva J. Kahrs, Jennie Tilt, Ruth Forsberg, Henrietta Fleck, and Martha Pittman.

It was moved and carried that this report be accepted.

The chairman then called for a report of the chairman of the Defense Committee which was read by Miss Barber in the absence of Lenna F. Cooper.

The chairman stated that when the House of Delegates met at its second meeting, the members were to discuss procedures and policies of the House as to how many delegates must be present to constitute a quorum, and the method of filling the unexpired term of the chairman or secretary in the event of resignation.

The chairman called the attention of the delegates to the following matters: State rolls should be kept corrected and up to date; news notes for the JOURNAL should be sent to the Business Office in the future; the pins and plaques carrying the seal of the Association are now available; more community education material is required; additional material for the library, including

floor plans, manuals, set-up of new departments, etc., is needed.

The next order of business was the discussion of problems submitted by the state associations, the first of which was the method of handling the expenses of the delegates to the annual meeting. No definite action was taken but the chairman suggested that the matter be brought up at the meeting of state presidents and discussed again at the second meeting of the House.

The chairman then called for information concerning the refresher courses sponsored by the state associations. This was discussed by Miss Forsberg, Miss Turner and Dr. Gillum.

In a discussion of the problem of expenses of state officers at state and national meetings, it was learned that many of the delegates are also presidents of their state associations and that while most of the delegates have some part of their expenses paid as delegates to the national convention, the same is not true of other state officers.

The second meeting of the House of Delegates was called to order by the chairman at 8 p.m., October 22, 1941.

The same delegates were present as at the first meeting, with the following exceptions: Helen Cate, Florida; Gertrude Walker, Kentucky; no delegate from Colorado.

The first order of business was the marking of ballots and the appointment of tellers.

It was moved and carried that the registration of qualified dietitians in the country as part of the defense program be continued, together with the clearing of state rolls.

It was moved and carried that a committee be appointed to outline procedures and policies for the House of Delegates.

It was moved and carried that the report of the Committee on Compiling a Code of Ethical Procedures for Dietitians be referred to the state associations for their consideration and comments, and brought up for final consideration at the next meeting of the House.

It was moved and carried that the recommendations of the Committee to Study the Organization of the House of Delegates in Other Organizations be accepted as presented at the first meeting.

It was moved and carried that the area map as presented by the Committee on Invitations be accepted as a tentative guide for the location of meetings of the Association.

It was moved and carried that the 1943 meeting be held in Pittsburgh.

It was moved and carried that a recommendation be carried back to the state associations that they assume some part of the expense incurred by their delegate in attending the annual meeting.

It was moved and carried that the House of Delegates go on record as in favor of having their first meeting on Monday instead of Sunday, if this can be worked into the program.

The report of the tellers committee was as follows: chairman, Elizabeth Perry; Nominating Committee—Ruth Forsberg, Martha S. Pittman, and Jennie Tilt.

Helen C. Burns spoke briefly on military status for Army dietitians.

The educational director summarized the tentative schedule of trips for the coming year.

It was moved and carried that the meeting adjourn at 9:30 p.m.

## Business Meeting

*St. Louis, October 20, 1941.* The meeting was called to order at 3:15 p.m. by the President, Mary I. Barber.

It was moved and carried that reading of the minutes of the previous meeting be dispensed with.

The reports of the president-elect and affiliation chairman, the secretary and chairman of the Membership Committee, and the vice-president and chairman of the House of Delegates were read and placed on file.

The treasurer read the auditor's report. Motion was made and carried that the report be accepted.

The reports of the educational director,

the editor of the JOURNAL, the chairman of the Legislative Committee and the business manager were presented.

The reports of the section chairmen were not read since they were to be published in the JOURNAL.

Ella M. Eck reported on the mobile kitchen for Britain which had been purchased by the Association. It was moved and carried that the funds on hand be used for the maintenance of this mobile kitchen for one year.

The report of the Professional Relations Committee was presented by its chairman. Mary M. Harrington reported on the matter of military status for Army dietitians. Mary de Garmo Bryan reported on the progress made in working with affiliated associations.

The next order of business was the report of the chairman of the Revisions Committee. The printed revisions which had been sent out to the membership were considered separately and were accepted as printed with the following changes:

*Constitution:* Article III. (2) At least two years of successful dietetic or nutrition experience . . . .

Article V. Government. Section 3. There shall be a Nominating Committee elected as hereinafter provided for, committees for approval of professional training courses . . . .

There being no unfinished old business and no new business, the meeting adjourned at 5:30 p.m.

## Committees

### *Defense*

The activities of this committee were divided into four divisions headed by the following members: Military Status, Mary M. Harrington; Legislative, Alma Bering; Cooperation with Affiliated Associations, Mary de Garmo Bryan; and Survey of Dietitians, Nell Clausen. These committee chairmen have worked untiringly but were hampered in some instances by unexpected developments in their field. Since each has submitted a report, this summary will deal only with the activities of the chairman.

The members of our Association have been kept informed of plans for the defense program through the JOURNAL. The editor in reality has been an ex-officio member of the council through the including of pertinent articles and editorials in the JOURNAL.

A letter was sent to state presidents in March, offering suggestions made by Mary de Garmo Bryan for cooperating with other groups on nutrition in the defense program. The following suggestions were also made by the chairman: 1. Urge dietitians to take the civil service examination recently announced in order that they may have civil service status for work in Army hospitals. 2. Urge enrollment for service regardless of military status. 3. Urge heads of approved courses to increase the enrollment of student dietitians. 4. Encourage other qualified hospitals to offer a course for students. 5. Coordinate the activities of state and local groups with those of state nutrition councils and state home economics associations.

How effective these suggestions have been will be determined by reports from the states.

Your chairman, in the interest of military status for dietitians, made one trip to Washington and interviewed several officers in the Office of the Surgeon General as well as others closely connected with this work.

A symposium on Nutrition in the Defense Program was conducted at the annual meeting of the American Nurses' Association in Detroit. Miss Harrington conducted the symposium and participated as speaker.

It would seem that now as never before we have an opportunity as an Association and as a profession to render a real and worthwhile service to our communities and to our country. Let us therefore make every effort to assist in and to promote programs for better nutrition.—LENNA F. COOPER, *Chairman.*

*Legislative*

Legislative interests of the A. D. A. have been carried on through the machinery of the Women's Joint Congressional Committee of which the Association is a member. The delegate and alternate have represented the Association at all meetings of this committee during the year and participated in activities concerning legislative measures which the Executive Board of the Association had agreed to sponsor. When legislative committees have been formed for action in connection with any of these measures, the Association has been represented.

Following is the list of the legislative measures sponsored: 1. Adequate support for women's bureaus. 2. Adequate support for the Office of Education. 3. Adequate support for the Food and Drug Administration. 4. Federal aid for education. 5. Revision of the Social Security Act. 6. Extension of the merit system in civil service. 7. Endorsement of measures involved in honest merchandizing. 8. Army status for dietitians.

In addition to working on the several legislative committees, the Association's delegate acted as chairman of the committee on Army status for dietitians. The third bill regarding this, S839, was introduced in the 77th Congress by Senator Sheppard, and as HR3790 by Congressman May of Kentucky. While the bill as written was not entirely satisfactory, it was hoped that its limitations and the need for amendment might be pointed out if a hearing could have been arranged in the spring. However, a hearing originally scheduled for April 12 was indefinitely postponed. Meanwhile, members of the Military Affairs Committees of both the House and Senate were interviewed and considerable interest has been aroused, all of which may be of value if a bill satisfactory to the majority of our members can be introduced in the midst of current emergency legislation.

A bill which, if reintroduced in the next session of Congress, may be of interest to our Association, is that sponsored by Mrs. Edith Nourse Rogers, designed to establish a Women's Auxiliary Corps for noncombatant service with the Army.

Besides affording a convenient set-up for the legislative effort of the Association, the Women's Joint Congressional Committee offers opportunities for the Association to identify itself with other women's organizations active in national and international affairs. The committee sponsored a dinner in honor of the delegates to the First International Congress of South American Women and invitations were sent to the Association's delegate and alternate to such affairs as the institute sponsored by the International World Organization Committee at American University and to a reception at the White House in honor of Mrs. Carrie Chapman Catt. Numerous opportunities are afforded to meet representatives of the various government agencies, to learn of their work and to acquaint them with the aims and purposes of this Association.—ALMA BERING, *Delegate;* EVELYN ANDERSON, *Alternate.*

*Press Relations*

The activities of Press Relations have been carried on throughout the year. With nutrition making news more prominently than ever before, it seemed advisable to try the year-round program which was carried on through different channels.

Almost every month, releases of leading articles appearing in the JOURNAL of the American Dietetic Association were sent to affiliated publications, medical and nursing journals, hotel and school magazines, and science writers of columns and newspapers. These releases, based on advance galleys supplied by the editor, were used more and more as indicated by the clippings.

State publicity chairmen were approached through many letters containing suggestions for news stories and it is reported that these suggestions were helpful guides in sending copy to newspapers. Whether the increase

in clippings of state stories can be attributed to this closer cooperation with state publicity chairmen is difficult to determine; it no doubt contributed. During the St. Louis convention state publicity chairmen were invited to assist in the press room which should be helpful to them in running their own state convention press rooms. Their cooperation is thoroughly appreciated.

Whenever something vital and interesting has happened within the Association, such as registration for defense or buying a mobile kitchen for England, a release has been sent to each state publicity chairman with suggestions as to how it could be presented in order to appeal to local newspapers. Many of the states have been very resourceful in submitting nutrition information to newspapers and magazines. Radio broadcasts have also been presented by many.

A clipping service has been used throughout the year. These clippings have been pasted in a scrap book, the bulging pages of which quickly reveal that members of the American Dietetic Association have been prominent in the news.

The St. Louis convention publicity was handled locally by Mrs. Thelma R. Lison who has been exceedingly helpful and cooperative. The Missouri Dietetic Association took over the publication of the "Star Issue" with Marie Harrington as editor. During the convention, the press room was staffed with state publicity chairmen, Mrs. Lison, and secretaries to take care of the daily newspaper and abstracts, and arrange interviews which would supply information to the press and over the radio.

Although this is my first year as chairman of press relations, there seems to have been an unusual amount of pre-convention interest shown by science writers, newspapers and magazines eager to have advance releases and other information pertaining to the convention. Many publications and newspaper associations sent their science writers to cover the meeting. This may be attributed to a generally aroused interest in nutrition, but it may also be due to the fact that newspaper associations and magazines now realize through the monthly releases sent them that we are operating a department equipped to give out authentic information on nutrition and dietetics.

The past year's work has been at times demanding but always interesting. If my contribution has helped to establish a closer friendly relationship between the American Dietetic Association and the press and radio, then I feel rewarded for the year's effort.—ELEANORA SENSE, *Chairman.*

### *Preparation of Vocational Material*

This committee has completed the writing of "Dietetics as a Profession" and submits it to the Executive Board for publication as a booklet.

Since the committee has completed the work for which it was appointed it considers itself dismissed.

The chairman of the committee recommends that the bibliography presented last year be reviewed yearly for the inclusion of new material and that the set of form answers for handling correspondence of a vocational nature be rewritten as conditions call for revision.—ANNA M. TRACY, *Chairman.*

### *Resolutions*

*Resolved*, That the American Dietetic Association express its sincere appreciation to all the individuals and organizations of our hostess city and state, whose untiring efforts have contributed to the success of the 1941 convention; to the St. Louis Dietetic Association for the Welcoming Tea, for the music for the Exhibitors' Dinner, and for the favors at the Banquet; to the Sisters of St. Mary's Hospital for painting and decorating the flower pots for the Welcoming Luncheon; to the exhibitors for their interesting exhibits; to Mary I. Barber, our President, who has done more in the past year to make the public and Uncle Sam

conscious of our profession than any other one person or group of persons has ever done before; to the representatives of the Army who have given so generously of their time; to Ruth M. Kahn and Mary C. St. John for the convention arrangements; to Louise Wilkonson and Eugenia Shrader for hospitality arrangements; to Marie C. Harrington and Bertha Bisbey, program chairmen; to Hazel Bradburn and Ethel Ollis, pages and ushers; to Vera Davis, special registration; to Mert McCollum, student registration; to Gertrude Samson, tickets and meal reservations; to Dorothy Dolan, trips; to Thelma R. Lison, local publicity; to Eleanora Sense, press relations; to Dorothy Lenfest, our business manager, and her staff; and finally to our speakers who have made this one of the most interesting and inspiring meetings in our history.

We recommend that these resolutions be adopted by the Association.—FRANCES B. FLOORE, *Chairman*, ELVA J. KAHRS, and HELEN SCHMIDT.

★★★

***A Civilian Defense Volunteer Office—What It Is. How It Is Set Up. What It Does. How to Organize It.***

The above is the title of a manual now available through the office of Civilian Defense at Washington and as the title implies the manual covers all the details of organization of civilian defense groups. With the appointment of Eloise Davison as Assistant Director in the Washington office, dietitians, nutritionists, and all women with home economics training will doubtless have an opportunity to serve effectively in a far flung program of civilian defense. In the October issue of the *OCD News Letter*, official bulletin of the Office of Civilian Defense, Mrs. Eleanor Roosevelt, also an Assistant Director, cites the objective of the work as follows: "to give every person—man, woman and child—wishing to volunteer his services in the interests of civilian defense, an opportunity to train for the work he wishes to do; to provide opportunities to participate in some type of work which will be of benefit to his community—now; and to prepare citizens to meet any emergency call that may come in the future.

***The National Dairy Council,*** Chicago, now has available food models in full color which in reality are life size photographic reproductions of actual foods in natural color. Ninety-four cardboard models are included and it is unnecessary to add that such food models are invaluable to any program on health, food and nutrition which stresses the importance of careful selection of food. A single set of the models is priced at $1. A booklet which lists other educational material is available from the Council at 111 N. Canal St., Chicago, and presents arrangements by which this material is available in single or quantity lots. The booklet also lists the addresses of local Dairy Council units throughout the country to which inquiries should be addressed by persons in the localities mentioned. In view of the pressure of responsibility on busy dietitians and nutritionists at present such material is of great help for it reduces considerably the extent of advance preparation necessary for lectures and demonstrations.

# CURRENT LITERATURE

## American Journal of Digestive Diseases

*Vol. 8, September 1941*

* Effect of liquid and solid meals on intestinal activity. J. H. Grindlay and F. C. Mann.—p. 324.
* The relation of nutrition to gastric function. IV. The effect of vitamin $B_1$ deficiency. H. M. Dyer and J. H. Roe.—p. 329.
* The relation of nutrition to gastric function. IV. The effect of vitamin A deficiency. H. M. Dyer and J. H. Roe.—p. 333.

INTESTINAL ACTIVITY. The introduction of a stomach tube in sham feeding, or of water or various liquid meals, or the feeding of a solid, cooked meat meal caused a typical motor response, a sudden burst of marked activity in exteriorized but otherwise intact loops of jejunum or ileum in trained dogs. This response was maintained only in the case of the solid meal.

VITAMIN $B_1$. Acute or chronic $B_1$ deficiencies in rats have no pathologic effect on the gastric secreting cells. No serious damage to the secreting cells of the gastric mucosa occurs even with conditions of extreme deficiency.

VITAMIN A. Acute vitamin A deficiency in young rats had no effect on the ability of the gastric cells to secrete acid or "mucin". The livers of the control, A-sufficient rats maintained for a period of 5–7 months on the basal diet supplemented with 4% cod liver oil contained an average of 9088 I. U. vitamin A per gram of liver, while the livers of the chronically A-deficient animals had an average A content of 5.6 units per gram.

## American Journal of Diseases of Children

*Vol. 62, September 1941*

* A study of the metabolism of ingested pectin. S. C. Werch and A. C. Ivy.—p. 499.

Domestic water and dental caries. III. Fluorine in human saliva. E. J. McClure.—p. 512.

* Effect of adding vitamin B complex to the diets of stabilized diabetic children. R. L. Jackson and I. Barth. —p. 516.
* Magnesium needs of preschool children. A. L. Daniels. —p. 568.

METABOLISM OF PECTIN. The decomposition of citrus pectin in the colon in young men on a mixed diet does not significantly change the excretion of formic or acetic acid, which are volatile acids, or reducing substances in the urine and feces. The favorable effects of a diet containing apple or pectin in the treatment of diarrhea are exerted exogenously in the lumen of the bowel.

VITAMIN B IN DIABETIC DIET. The ingestion of vitamin B-complex in amounts in excess of that obtainable in well-planned diets did not lessen the insulin requirement of children with controlled diabetes mellitus.

MAGNESIUM NEEDS. With magnesium ingestions between 11.8 and 14.5 mg. per kg. body weight, average retentions for 3 boys of preschool age were almost constant. With lower ingestions, retentions varied between just positive and frankly negative. Evidence was not sufficiently conclusive that calcium and magnesium are metabolically dependent on each other.

## American Journal of Nursing

*Vol. 41, September 1941*

What is adequate nutrition? B. D. Westerman.—p. 1014.

## Archives of Internal Medicine

*Vol. 68, September 1941*

* Transmission of antianemic principle across the placenta and its influence on embryonic erythropoiesis. I. Quantitative effect of diets containing ventriculin. O. P. Jones.—p. 476.

ANTIANEMIC PRINCIPLE. When normal pregnant rats are fed diets containing desiccated hog stomach, some antianemic substance absorbed from the gastro-intestinal tract is transmitted by the placenta. Diets containing high concentrations of ventriculin are not so effective as those containing amounts nearer physiologic limits, because of the increased intestinal malabsorption produced by the diet itself.

## Canadian Public Health Journal

*Vol. 32, September 1941*

* Improving nutrition via the family budget. M. Harlow. —p. 459.

IMPROVING NUTRITION. The absorption of unemployed heads of families into industry and

defense is gradually increasing the spending power, but the purchase of a health-protective diet still continues to be difficult. The budget must cover replacement of household equipment and clothing so badly depleted during years on relief or very low wages. Until an adequate daily quantity of milk and cheese is used, the money spent for meat should be small. Shortages of calcium, iron and vitamin $B_1$ are most common. Home-cooked baked beans, cereals, soup, cookies, etc., usually cost from one fourth to two thirds as much as the "store" product, especially for the large family and when the fuel for cooking is also used for heating.

### Journal of the American Medical Association

*Vol. 117, September 6, 1941*

* The pancreas as an organ of internal secretion. E. T. Waters and C. H. Best.—p. 852.

*Vol. 117, September 13, 1941*

* Vitamin deficiencies and the small intestine. T. T. Mackie.—p. 910.
* The small intestine in vitamin B deficiency. R. Golden.—p. 913.
* A syndrome due to deficiency of the vitamin B complex. M. J. Lepore and R. Golden.—p. 918.

*Vol. 117, September 20, 1941*

Internal secretions of the gastrointestinal tract. A. C. Ivy.—p. 1013.

*Vol. 117, September 27, 1941*

* Dietary healing of dental caries. Editorial.—p. 1099.

PANCREAS. The active material of insulin is a protein having a molecular weight similar to that of egg albumin. The pancreas is the only organ which makes and stores the antidiabetic hormone in detectable amounts. This organ contains a dietary factor or factors other than choline which affect liver fat in rats and is present in rice polishings and yeast.

VITAMIN DEFICIENCIES. Roentgenologic changes in the small intestine included in the term, "deficiency pattern", have diagnostic significance. They vary directly with the severity of the clinical condition and regress under specific therapy.

SMALL INTESTINE. Nutritional disorders, particularly in cases of vitamin B deficiency, are often associated with disturbances in the small intestine as determined by roentgenograms. Demonstration of these changes may be the first indication that a vitamin deficiency may play a primary or a secondary part in the patient's condition.

VITAMIN DEFICIENCY. The main objective features of a nutritional deficiency syndrome are malnutrition, a flat oral dextrose tolerance curve and an abnormal small intestine roentgen-ray pattern. The disorder responds to vitamin B therapy. Patients with achlorhydria or severe small intestine changes respond best to parenteral administration of the vitamin B-complex or crude liver extract.

DIETARY HEALING OF CARIES. Dental caries can be produced in rats in 8 weeks by feeding coarse corn rations. Frequent impaction of coarse corn particles in the lower molars caused subsequent tooth decay. When returned to the non-carious stock diet for 2 months, the carious process was arrested or almost completely repaired. The exposed dentin was covered by a thick layer of secondary dentin.

### Journal of Biological Chemistry

*Vol. 140, September 1941*

* Synthesis of nicotinic acid by the chick embryo. W. J. Dann and P. Handler.—p. 935.

NICOTINIC ACID SYNTHESIS. During incubation, the nicotinic acid content of eggs increased until the hatching chick contained 10 times as much as the unincubated egg. The increase did not begin until the second half of the incubation. The hatched chick is probably able to synthesize nicotinic acid and is therefore not dependent on a dietary supply.

### Journal of Nutrition

*Vol. 22, September 1941*

* Histological studies of the tissues of rats fed a diet extremely low in zinc. R. H. Follis, H. G. Day and E. V. McCollum.—p. 223.
The nutritional importance of choline. Editorial review. W. H. Griffith.—p. 239.

Reduction in experimental rat caries by [illegible]e. S. B. Finn and H. C. Hodge.—p. 255.

• The ascorbic acid content of cow's milk during pregnancy. A. D. Holmes, F. Tripp, E. A. Woelffer and G. H. Satterfield.—p. 267.

• The effects of various vitamin supplements and of whole yeast on the digestion and absorption of the carbohydrate of a complete diet. R. A. Russell and E. S. Nasset.—p. 287.

• Further observations on riboflavin as a food factor in economy of food utilization. B. Sure.—p. 295.

• The production of high vitamin A milk by diet. H. J. Deuel, N. Halliday, L. F. Hallman, C. Johnston and A. J. Miller.—p. 303.

ZINC. In rats fed a diet adequate in all known respects other than an extremely low zinc content, the esophagus showed extreme parakeratosis with a thick layer of partially keratinized cells. The skin showed hyperkeratinization, thickening of the epidermis and loss of hair follicles. Secondary bacterial infection occurred later. Two animals showed vascularization of the cornea and leukocytic infiltration similar to that in riboflavin deficiency. Zinc deficiency may impair the absorption or utilization of riboflavin.

ASCORBIC ACID. The vitamin C content of milk from Guernsey and Holstein cows tends to decrease with the advance of pregnancy, but there is considerable variation at all stages of pregnancy in different cows.

B-COMPLEX AND DIGESTION. Fresh yeast has a local stimulatory effect on gastro-intestinal motility in dogs. Increased motility is often accompanied by increased rates of digestion and absorption of carbohydrate. Dried yeast and a 50% alcohol-soluble extract had no effect on motility but increased the rates of digestion and absorption by about 20%.

RIBOFLAVIN. Riboflavin deficiency, unlike thiamin deficiency, is unaccompanied by anorexia. There may be a moderate reduction, no reduction, or even an increased food intake. The riboflavin-deficient rats show alopecia, dermatitis at the denuded areas of the skin, rough hair, conjunctivitis, keratitis, and premature senility.

HIGH VITAMIN A MILK. The vitamin A content of the butterfat obtained from cows on a diet high in fresh alfalfa was considerably increased by the administration of shark liver oil.

## Journal of Pediatrics

*Vol. 19, September 1941*

• The standard metabolism of adolescence. B. Webster, H. Harrington and L. M. Wright.—p. 347.

• Obesity in relation to puberty. H. Bruch.—p. 365.

• What to do about the fat child at puberty. F. W. Schlutz.—p. 376.

METABOLISM OF ADOLESCENCE. A longitudinal 5-year study of the standard metabolism of a group of 13 boys and 8 girls between the ages of 10 and 16 years revealed a gradual decrease in the relative heat production. This decrease was most marked between the ages of 11 and 12 years in both boys and girls. Boys showed a higher basal metabolism than girls.

OBESITY. Obese children are advanced in statural growth and maturation. Early development is the rule for obese girls and is not uncommon for obese boys. Tall, rapidly growing children tend to reach puberty early and to stop growing at a younger age. The growth pattern of obese children represents an exaggeration of this normal trend. A reduction of the excessive weight is indicated. In contrast to the accelerated physical and good intellectual development, obese children show a marked retardation in social and emotional maturation.

FAT CHILD. Simple exogenous obesity is the most frequent and common type at puberty and fortunately is amenable to treatment. Basically, the treatment must effect significant reduction of caloric intake and an increased expenditure of energy through exercise. The psychologic and psychiatric aspects of the case should be well appraised and managed.

## New England Journal of Medicine

*Vol. 225, September 18, 1941*

• The school lunch. Editorial.—p. 464.

SCHOOL LUNCH. In adapting the school lunch to the needs of the child, one must recognize and correct the principal nutritional deficiencies found in American diets which are calcium, vitamin $B_1$ and, in certain areas, iodine and the pellagra-preventive factors, nicotinic acid and riboflavin. A great deal of education in the selection and preparation of food is necessary. Too many people have habituated themselves to absorbing calories "on the run" with little regard to a balanced diet.

### Public Health Reports

*Vol. 56, September 16, 1941*

* The influence of dietary factors upon the therapeutic activity of sulfanilamide in mice. S. M. Rosenthal.—p. 1880.

DIET AND SULFANILAMIDE ACTIVITY. Wide variation in the therapeutic response to sulfanilamide can be produced in mice by alterations in diet. Protein inhibits the action of this drug. Mice on a diet deficient in protein show higher concentrations of sulfanilamide in the blood.

### Science

*Vol. 94, September 12, 1941*

* Clinical achromotrichia. B. F. Sieve.—p. 257.

ACHROMOTRICHIA. Nine patients with endocrine disturbances received vitamin B-complex alone or with endocrine substances. Definite darkening with many new natural-colored hairs was striking evidence of the beneficial effects of treatment. The vitamin B-complex contained pantothenic acid.

## INSTITUTION MANAGEMENT

### Buildings and Building Management

*Vol. 41, July 1941*

* Combating obsolescence. E. E. Walker.—p. 30.

*Vol. 41, August 1941*

* Practical pointers on maintenance.—p. 22.
* Electrical modernization. E. Burke.—p. 26.

OBSOLESCENCE. In order to assure proper maintenance of certain vital parts of the building, such as steam and water pipes, electrical equipment, greasing and oiling machinery, scrubbing corridors, washing walls, etc., it is necessary to see that employees are properly trained in their particular field of work so that they will not cause damage to expensive machinery and equipment. Every part of a building should be inspected regularly, not only for repairs necessary for the operation of the building, but for worn-out and decayed parts. The final appearance of a building is dependent on good housekeeping, careful maintenance and cleanliness of employees.

MAINTENANCE. A committee of maintenance men pooled their knowledge and experience to arrive at a satisfactory process for maintaining each type of building surface. Plaster and painted walls; wood, marble, asphalt, rubber composition, and linoleum floors; upholstered surfaces; carpet; metal polishes; furniture polish; and deodorants are discussed.

LIGHTING EFFICIENCY. In a recent program of electrical modernization the original wiring system provided less than 2 watts per square foot whereas the newly installed system provides 8 watts per square foot. The main service was changed over from the original 120–240 volt single-phase wiring system to a new four-wire 120–208 volt three-phase system. Tests indicated that 4.4% of the energy previously consumed by lamps was entirely wasted, due to lower efficiency brought about by operating the lamps at a voltage below their rating; that is, during the normal 1000-hour life of a 200-watt lamp approximately 29 K.W. hours of energy were being wasted. Modernization corrected these electrical losses.

### Consumers' Guide

*Vol. 7, March 1941*

* How smart are you?—p. 3.
* Standards for consumers are on the march.—p. 6.

Citrus saga. Part V.—p. 8.
Milk glossary for consumers. Part XI.—p. 11.

ARMY COOKING. In the Army there is one man in the mess for every 50 men. Cooks are trained in the 60 Army cooks and bakers schools throughout the United States and its possessions. Graduates from the 2-month training course are classified as first or second cooks. A first cook must study an extra month to qualify as mess sergeant. It is the duty of mess personnel to see that all food received is clean, sanitary, wholesome and of the grade required by the government specifications. The "Army Cook" is their textbook.

STANDARDS FOR CONSUMERS. *Consumer Standards*, a record of standardization by the Government, individuals, and organized consumers prepared under the general supervision of the

Consumers' Counsel Division and issued by the Temporary National Economic Committee, can be purchased for $1 from the Superintendent of Documents, Washington, D. C.

### Food Industries

*Vol. 13, July 1941*


* Mycostatic salts prevent mold growths in stored foods. W. L. Mallman.—p. 41.
* Food technologists analyze problems and progress.—p. 43.
* Poultry smoking tests indicate successful methods. M. E. Highlands and J. W. Burns.—p. 46.
* How to make naturally flavored maraschino-type cherries. F. A. Lee and E. A. Beavens.—p. 52.

Precautions must surround addition of vitamin C. G. O. Cragwall.—p. 55.

* Methods of determining vitamin $B_1$ in foods. E. D. Stewart.—p. 56.

How to put vitamin A into foods made from flour. E. F. Glabe.—p. 62.

* Processing apple juice.—p. 95.

Problems of aluminum in solution for washing bottles.—p. 95.

How to make pink California wines.—p. 95.

* Thermoduric bacteria in pasteurized milk.—p. 95.
* Frozen homogenized milk.—p. 96.
* Cream body.—p. 96.
* Preserving fish.—p. 96.
* Yellow discoloration of canned oysters is mainly carotene.—p. 97.

Gas-forming organisms in meat.—p. 97.

* Heat penetration in meat canned in glass.—p. 98.

Color in fruit products.—p. 99.

Citrus pectates.—p. 99.


FOOD STORAGE. A report of research studies describes action of mycostatic salts (inhibiting to mold growth) on the storage properties of 30 doz. case eggs. The chemical agent introduced into the fillers and flats not only protected these materials from mold growths but also projected their disinfecting properties into the cubicles containing the eggs so that no molds developed on the surfaces of the eggs.

I. F. T. CONFERENCE. Summary of technical papers presented at the second annual meeting of the Institute of Food Technologists includes the topics of vitamins, technology and engineering, packaging and storage, by-products, education, national defense, sanitation and flavor.

SMOKED POULTRY. Quality smoked poultry is produced only if killing and drawing operations, pickling formulas and operations and smoking conditions are carefully controlled. The relatively high retail price ($.45–.5016) limits the market to delicatessens, hotels, and specialty food product retail outlets.

CHERRIES. Describes methods for flavoring colored cherries with natural cherry syrups to avoid the artificial flavor often found in the imported or domestic maraschino type cherries. The Napoleon (Royal Ann) variety of cherry was bleached and dyed in the usual manner and finished with syrups prepared from the Montmorency and English Morello cherries instead of the imported liqueur made from the fruit and young leaves of the Marasca cherry tree grown in the province of Dalmatia, Italy.

THIAMIN. Outlines methods and problems involved in determining vitamin $B_1$ (thiamin hydrochloride) in food products.

APPLE JUICE. Flash sterilization in monel metal tubes permits pasteurization of apple juice without loss of flavor and without caramelization. A temperature of 170° F. allows a margin of safety and conserves juice quality better than a higher temperature. Hot juice is passed directly to non-sterile bottles or cans. Because tin plate fades apple juice and impairs quality, cans must be enameled and filled from the bottom to avoid aeration and foaming.

THERMODURIC BACTERIA. Milk pasteurized by the short-time, high temperature method (161° F. for 16 seconds) shows greater bacterial counts than that pasteurized at 143° for 35 minutes. The number of acid-formers is the same in both, but alkali-formers are far more numerous in the short-high pasteurized milk. These thermoduric bacteria are harmless, but since boards of health insist on count rather than kind of bacteria, milk handlers must control their numbers in salable milk.

FROZEN MILK. Homogenized milk behaves differently from ordinary liquid milk when frozen. The frozen portion of homogenized milk is poorer in fat and solids-not-fat than the remaining liquid, while with ordinary milk the frozen portion is richer in fat and poorer in solids-not-fat; homogenized milk also freezes faster.

CREAM. Washed cream has a lower viscosity than normal raw or pasteurized cream. Winter

cream is more viscous than that from cows on pasture. Heat treatment increases body. Repeated pouring of cream lowers viscosity. The heavy body of cream produced by aging for 24 hours or by heat treatment is due to the formation of a definite but temporary structural condition.

FISH. Crushed ice, containing as little as 0.1% sodium nitrite, is remarkably effective in the preservation of fresh fish and is to be preferred to ice in which ozone, hydrogen peroxide or benzoic acid have been incorporated.

OYSTERS. The yellow discoloration found in canned oysters is mainly carotene. Diffusion of the pigment from the liver into surrounding tissue can be inhibited by low temperature storage, a temperature of 0° F. being effective.

CANNING MEAT. For home canning of beef it is recommended that the pack be preheated at 86° F., then heated 90 minutes in the cooker at a 15-lb. steam pressure.

### Horwath Hotel Accountant

*Vol. 21, July 1941*

* Nation-wide survey restaurant operating data.—p. 2.
Mid-year report on hotel operations.—p. 4.

*Vol. 21, August 1941*

Up with menu prices.—p. 2.
Operating averages for guidance.—p. 2.

### Hotel Management

*Vol. 40, July 1941*

* Food specialties.—p. 43.
General profit and loss statement.—p. 46.
* Food cost and sales.—p. 47.
* Cape Cod room.—p. 48.
* Food tests and standards. J. Gesell.—p. 50.
* China sizes for food service.—p. 54.
* Bananas—what you should know about them.—p. 78.

*Vol. 40, August 1941*

The social director—a profit-maker. M. Dallas.—p. 14.
* Ten color schemes for dining rooms.—p. 25.
* How to carve a ham.—p. 32.
* 100 ways to control food costs.—p. 40.

RESTAURANT OPERATING DATA. The annual "Restaurant Operating Data" survey based on annual statements of 257 restaurants for 1940 is now available for $1 on application to the National Restaurant Association.

FOOD SPECIALTIES. Photographs of appetizing plate specialties featured on the Hotel Lexington's menus are shown in this article. The features include fruit salad or chef's salad bowl, cold meat and vegetable plates, fowl, fish, roasts, steaks, chops, pot pies, egg dishes, and skillet specialties. The attractively arranged plates have suggested prices and brief descriptions.

FOOD COSTS AND SALES. Food cost at the Hotel Lexington, New York, is used to control quality and to reduce waste, but not to reduce quality to meet costs. All food employees are made keenly aware of the house policy for maintaining high food standards and the summary on daily food costs and sales included in the article indicates the thorough follow through on the food control set-up.

CAPE COD ROOM. This is one of the more distinctive restaurants in American hotels. Sea foods are specialties although a variety of other items is available. Illustrative photographs of the room's interior, the sample menu forms, and the written description give a complete picture of the restaurant.

FOOD TESTS AND STANDARDS. Meat accounts for 50% of the food issue of Hotel Lexington. A buying guide helps maintain quality and service through a system of store-room supervision, butcher shop transactions and buying specifications.

CHINA SIZES. Use of correct size and shape china promotes attractive food service. Sketches of china drawn to scale present a complete line of institutional ware which would be useful in purchasing or replacing whole sets or individual items.

BANANAS. A discussion of the history, source, origin, size, appearance, qualities and nutritive content of bananas. Usable equivalent weights and measurement tabulation included.

COLOR SCHEME. A new service is offered for a limited time which provides a collection of samples of wall paper and draperies for any one of the ten color schemes noted on a chart of suggestions for redecorating dining-rooms.

How to Carve Hams. Two methods of carving a whole ham are described by detailed instructions and fine drawings. The conditions under which each method should be used are stated.

Food Cost Control. Practical suggestions for controlling food costs in commercial and privately owned food service institutions cover marketing and service.

### Hotel Monthly

*Vol. 49, June 1941*

* Individual cooking technique in a large hotel kitchen.—p. 28.
Use pictures to boost sales.—p. 32.
* The menu translator.—p. 56.

*Vol. 49, July 1941*

Decorating for profits. P. Dorris.—p. 4.
* What apples are best for pie?—p. 21.
Clerk's desk at front door personalizes service for motorist.—p. 23.
You are never too late for dinner at Schuler's.—p. 25.

Individual Cooking Technique. Palmer House, Chicago, has introduced a new individual cooking technique for fresh vegetables. A small household-size pressure cooker, which lends itself to automatic heat control, is used. Illustrations show the special battery of gas burners with automatic control for each burner constructed to handle several pressure cookers at one time. Some prepared dishes are brought directly to the table in the pressure cooker; others are dished up in the kitchen and brought out on regular service dishes. There are no economies in this type of food preparation, but benefits are derived from increased guest satisfaction due to superior quality—shape, color and flavor—of the vegetables.

Menu Translator. The revised *Universal Dictionary of Menus* is three times as large as formerly, lists three times as many dishes and is distributed in this country exclusively by The Hotel Monthly Bookshop.

Pie Apples. The favorite varieties of apples for apple pie according to Mr. Shircliffe and Mr. Onesto include the Pippin, Garden Delicious, Grimes Golden, Stayman Winesap, McIntosh and Baldwin. Recipes for outstanding apple pies are given.

### Nation's Schools

*Vol. 27, July 1941*

Education of an administrator. W. D. Cocking.—p. 31.
* Objectives in heating and ventilating public school buildings. S. C. Stacy.—p. 34.
* Some facts about nutrition. M. Atkin.—p. 66.

*Vol. 27, August 1941*

* Course in cafeteria management. M. de G. Bryan.—p. 66.
* Food for thought.—p. 68.
* Experiment in school lunches. M. C. Moore.—p. 70.

Heating and Ventilating. Air volumes in confined spaces must be kept within certain definite limits of temperature, humidity, and air motion in order to be comfortable for human habitation. Problems in school heating and ventilating peculiar to the different sections of the country are discussed, and recommendations made as to types of installation and methods of layout.

School Lunch. The school lunch should be more than a balanced meal; it should carry substantial amounts of the special nutrients that are most likely to be lacking in an average diet since many school children receive inferior nutrition at home. Of the factors which make up a balanced diet, those most often deficient are calcium, iron, vitamins A and $B_1$, nicotinic acid, C and D, and sufficient high quality protein. Protective foods which overcome these deficiencies should be included. It is also important in the school lunch to include inexpensive cuts of meat and, if possible, to provide a glandular meat such as liver at least once a week.

Cafeteria Management. In a course in cafeteria management for the vocational pupils in the schools of Niagara Falls, three girls are assigned to a school during a period of two weeks. During the course special emphasis is laid on the following points: personal cleanliness, *i.e.* clean hair, uniform, nails and hands; use and care of equipment; standards of food; general cleanliness of kitchen. Each girl is scheduled to a variety of duties during the three-week course in order to obtain an overall picture of cafeteria management. Detailed instructions are provided to guide food preparation and use of equipment.

TRENDS. Winning S. Pendergast, supervisor of school lunchrooms, Detroit, reports that a second semester of training has been added for school lunchroom managers in which students serve in a large lunchroom as assistant manager at the regular salary for such assistance.

COMBATING MALNUTRITION. After an extensive examination of school-children in Louisiana, directors of Louisiana's 42 full-time health units agreed that malnutrition is the greatest health problem in the schools. Since it was felt that an adequately planned and served school lunch would be a logical remedy for this condition, 4000 diets of fifth-grade children were analyzed to learn where the greatest deficiencies existed. It was discovered that the vitamin $B_1$ intake was deficient and the vitamin A and the calcium intake marginal. An experiment was performed to test the accuracy of these observations. When half the group ate a 10¢ plate lunch planned to provide an increased amount of the foods containing the vitamins and minerals found to be deficient in average diets, at the end of the school year the average weight gained by this group was approximately 2 lb. more than that of the group who ate as they chose.

## Personnel Journal

*Vol. 20, May 1941*

* Tests in industry. I. Their proper use. E. N. Hay.—p. 3.
* Tests in industry. II. Practical illustration. E. N. Hay.—p. 10.
* Vocational counseling. I. By use of tests. S. G. Dulsky.—p. 16.
* Vocational counseling. II. By interview. S. G. Dulsky.—p. 23.
* Supervision and instruction. A. W. Pond.—p. 29.
* Reading ability and executive efficiency. S. V. Wilking.—p. 34.

*Vol. 20, June 1941*

* The psychology of safety. C. S. Slocombe.—p. 42.
* What is a job worth? J. E. Hopwood.—p. 51.
* Medical care for employees. F. Goldmann.—p. 66.
* Reprimanding employees. J. J. Jackson.—p. 73.

INDUSTRIAL TESTS—USES. By means of psychologic methods of testing applicants for employment and promotion, the training period can be decreased and performance on the job improved. Misfits in a particular job are discharged or directed into the correct job. Supervision of work calls for qualities other than those requisite for performance of the work itself and in this field the industrial psychologist has an opportunity to improve the supervisor-employee relationship.

INDUSTRIAL TESTS—RESULTS. The value of psychologic methods in employment is determined by comparing the reports of executives who have used personnel so employed with those of others whose employees are hired without benefit of the insight which psychologic tests give. Such tests show up differences in ability, performance on the job, and the economic and social results of fitting intelligence to the job. Charts and tabulations show results secured.

VOCATIONAL TESTS. Objective test results are used more and more in vocational counseling. Includes an analysis of the tests—intelligence, achievement, aptitude and personality; suggestions for eliminating certain tests; and methods for improving vocational interview.

VOCATIONAL INTERVIEW. The personal interview should be given more importance in vocational counseling and if properly conducted should include education history, employment history, vocational aims, interests, recreation and hobbies, family background, health and practical considerations. The most important characteristics to evaluate are the motivation and personality of the client.

SUPERVISION AND INSTRUCTION. If instructions are given to employees they should be understood thoroughly and interpreted correctly. Presents three steps for checking adequacy of instructions given and their intelligent reception by the employee.

READING AND EFFICIENCY. Rapid reading, if accompanied by associated reading, increases executive efficiency.

SAFETY PSYCHOLOGY. That there are individual differences among workers in ability to avoid accidents is emphasized in a discussion of exhaustive research on industrial accidents. Because of the difference between ability and willingness to abide by the safety principle, special safety means must be used when the first factor is found to be the main cause of a high accident rate. Aspects reviewed include

development of the safety movement, the National Safety Council's job, mass appeal movement, theory of conformity, and ability *vs.* willingness.

JOB EVALUATION. "The measure of a job in a company is the relative or comparative importance of the contribution it makes to the success of the enterprise." That this must be the prime base of any system of job evaluation is pointed out in a comprehensive review of job evaluation methods, past and present. Practical illustrations supplement the discussion in which is stressed "good management means good organization and unity, the integration of jobs and consistency in dealing from top down, not breaking down by factional groupings."

MEDICAL CARE. The main features of two different industrial-type plans for providing medical care to employees are reported. Presumably plans of this type are forerunners of some national scheme of health insurance, provided by social security taxes. Comparison charts show average costs of the two medical care programs, average costs of medical service with attendances at clinic and home, and general hospital care.

REPRIMANDING EMPLOYEES. Complete and understandable instructions, along with a real effort to understand employee problems and a kind word now and then will do much to eliminate the necessity for reprimanding employees. The results of severe criticism are "a large item of costs when extreme care is not taken as to the justice of the matter and how it is handled". Workers should not be censured when there is an audience, when the supervisor is tired or angry, or when the intentions of the worker were good. That reprimands should be given in an impersonal manner and in such a way that the employee can maintain his self-respect is self-evident.

## Restaurant Management

*Vol. 49, July 1941*

• Pear chart.—p. 14.
$350 daily sales from $35,000 Oklahoma drive-inn.—p. 30.

*Vol. 49, August 1941*

• "We speed up service." W. P. Brown.—p. 16.
• Food merchandising at Macy's. H. M. Hirsh.—p. 18.
Johnson moves in on cafe society. W. O. Voegele.—p. 28.

PEAR CHART. The chart covers appearance, size, color, texture, specific and general uses, and the best season for the 10 varieties of pears on the market.

SERVICE. Main dining-room service in restaurant of Abraham & Straus, Inc., New York, has been speeded up during peak loads by quicker transmission of orders from dining-room to kitchen, faster preparation in the kitchen and better customer service in the dining-room.

FOOD MERCHANDISING. Harold M. Hirsh, merchandising councilor, L. Bamberger & Co. and R. H. Macy & Co., presents the personal qualifications he requires of his dietitians for the advancement of the organizations. A few of the clever merchandising ideas brought out by the enterprising dietitians and staff are pictured.

★ ★ ★

★ ★ ★ *A Healthy America is a Strong America.* This is the title of a manual prepared under the direction of Julia Kiene, manager of the Home Economics Department of the Westinghouse Electric & Manufacturing Company, Mansfield, Ohio. Miss Kiene suggests that dietitians heading nutrition groups in their localities might find the manual of help in presenting a demonstration in their community. The content of the manual depicts an Army menu for one day and what it means to America's homemakers. It includes general instructions for the demonstration, lists of equipment and supplies and also a sample lecture, appropriate menus and recipes for the demonstration. With the present emphasis on nutrition the principles of which stress the use of vegetables and their careful preparation, Miss Kiene has included very pertinent and graphic details concerning the preparation, storage and cooking of all food and particularly vegetables and fruits.

# NEWS NOTES

**The St. Louis Meeting of the American Dietetic Association.** Nearly 1300 members and guests of the Association registered at this 24th annual meeting. Social festivities began Saturday afternoon, October 18, when the members of the Executive Board were entertained by the hostess organizations, the Missouri and St. Louis Dietetic Associations. Members noted for their skill in preparing certain specialties contributed a variety of delectable cakes, pies and cookies. This was followed on Sunday by a "Harvest Tea", given by the St. Louis Dietetic Association on the Starlight Roof of the Hotel Chase, which was attended by more than 400. Unusually attractive tables carried out the autumnal theme with ice frozen in the form of huge cornucopias decorated with bunches of grapes and ice cream molded in fruit forms.

At the official Welcoming Luncheon on Monday at which Ruth M. Kahn presided, greetings were extended by Henry S. Canfield, former governor of Missouri, the Hon. William Dee Becker, mayor of St. Louis, Dr. Joseph F. Bredeck, health commissioner of St. Louis, and Dr. Joseph C. Peden, president of the St. Louis Medical Society. Autumn flowers in small pots served as table decorations and were presented to the guests. The menus for this and the other special meals of the week were in the capable hands of Ruth M. Kahn, and many of the dishes were specialties of the locale. The menus and many of the special recipes are to be distributed to women's page editors over the country.

Another particularly enjoyable social event of the week was the Exhibitors' Party at the Hotel Statler Tuesday evening, with Elsie W. Stark presiding and Col. R. A. Osmun speaking on "Army Food and the Future." Col. Osmun, who had recently returned from abroad as observer for the United States Army, detailed his experiences in bombed London and other sections of England. Through the evening the guests were entertained by the Celestial Choir of St. Louis. The large ballroom of the Hotel Statler, which fourteen years ago had been the scene of the 10th anniversary birthday dinner, was taxed to capacity. The red and white Mississippi riverboats at each table were sold to the highest bidders, and the $150 collected from their sale will be sent to Charlotte Raymond, a member of the Association now serving as nutritionist for the Red Cross-Harvard Medical Unit in England, to use as she sees fit. The boats were made in the Washington University School of Occupational Therapy.

A hand-made place card decorated with the flag of her state greeted each guest at the luncheon for state presidents on Wednesday. The artist, Lucille Langham, will soon finish a student dietitian training course at Presbyterian Hospital, New York.

The final social event of the week was the Annual Banquet on Thursday, at which Mary I. Barber presided in her own inimitable and gracious manner. The bright floral decorations at each table were surrounded by miniature teams of Missouri mules as guest favors. Francis P. Douglas gave a talk on "Missourianna" which depicted the early days of St. Louis and its environs. Among the honored guests at the speakers' table were Major Charles F. Kearney, Major S. B. Edwards of Scott Field, and Fairfax Proudfit. As the president introduced Miss Proudfit, who has pioneered in the dietetic profession in the South, the audience rose in tribute.

Especially commendable were the educational as well as the commercial exhibits, over 60 of which were shown.

The four-day formal program was followed by a day devoted to visits to the leading clinics of St. Louis, to various large group food services, markets, hotels, food distributors and manufacturers, school cafeterias, and to Scott Field to see the new mess hall which serves the flying cadets. A clinic was presented at Barnes Hospital with Dr. W. H. Olmsted and Marjorie Jorgenson in charge and the following program: "Feeding a Purified Diet to Human Subjects," Dr. Olmsted; "Electrolyte Metabolism in Adreno-Cortical Disease," Dr. Cyril MacBryde; and "The Assimilability of Iron Phytate," Dr. Carl V. Moore. Another clinic at Firmin Desloge Hospital, with Mary C. St. John and Dr. Goronwy O. Broun in charge, presented a program covering: "Use of Low Cholesterol Diets and Choline in the Treatment of Certain Vascular Conditions," Dr. Broun; and "Relation of Modern Dietetics to Child Growth and Development as Seen by the Clinician," Dr. Peter G. Danis.

**An Examination for Student Dietitians to Fill Positions at the Army Medical Center, Washington, D. C.** Applications must be filed with the Civil Service Commission, Washington, not later than December 30. Appointees are paid $420 a year less deduction for subsistence and quarters. Graduates may be eligible for service as dietitians at $1620 per year. Requisites are a 4-year college course, covering chemistry, biology, social sciences, education, foods, nutrition and dietetics, and institution management, and 20–35 years of age.

**The Training of Nutrition Volunteers in the Defense Program.** A meeting devoted to this subject was held on October 23 at the St. Louis meeting with Margery Vaughn, assistant to Dr. Helen S. Mitchell of the Federal Security Agency, presiding. Melva B. Bakkie, nutritionist for the American National Red Cross, Washington, D. C., stated that "In accordance with the written understanding between the U. S. Office of Civilian Defense and the American Red Cross, the American Red Cross assumes the responsibility of canteen corps activity in war, as well as such services as may be needed in times of peace by reason of disaster. It is one of the agencies which may train volunteer aides for the National Nutrition Program."

Miss Bakkie added that the Red Cross offers through its chapters two courses in nutrition which have been adapted to the needs of the Office of Defense Health and Welfare Services and the U. S. Office of Civilian Defense. One is called the standard nutrition course and the other the canteen course. Leaflets which are available from the national headquarters of the Red Cross detail the content of these courses, who may take such courses, the qualifications of instructors, how to obtain authority to teach such courses, teaching materials available, and so on. At present the Red Cross has for distribution the "Food and Nutrition Textbook" (ARC 725, revised October 1941), at 25 cents per copy, and a "Canteen Corps Manual" (ARC 722).

**Food Clinic Workshop.** With Mrs. Martha Alderman Hunscher presiding, a group of 60 gathered on October 23 at the St. Louis meeting of the A. D. A. to discuss the subject of the interrelationships of the food clinic and the community. As the basis for a future study of such relationships, Mrs. Hunscher distributed mimeographed questionnaire sheets to those attending, which were returned by 14. Other material distributed at this meeting of interest to the community nutritionist included the folder available from the Massachusetts Department of Public Health which outlines the services of such nutritionists, the organizations they serve and the methods used in bettering the nutrition of the family. Of interest, too, were reprints of the paper entitled "A Food Clinic" which appeared as the fifth of a series of Tufts Medical School papers. Copies of this reprint may be obtained by writing to Frances Stern at the Boston Dispensary. Miss Stern presented a paper entitled "The Relation of the Food Clinic to the Community" which will appear in one of the coming issues of this JOURNAL. At the conclusion, a sound film, "Fun in Food" was shown. This 16 mm. film may be obtained from Films Incorporated, 330 W. 42nd St., New York, at a rental of $3, purchase price $180. The film graphically depicts the food needs of the body, as well as food values which are easily understood by children as well as adults, and was recently shown before the American Public Health Association in Atlantic City, and earlier before one of the sections of the National Nutrition Conference.

Further discussion included such subjects as the experience of the workers with the Food Stamp Plan in assisting low income families and individuals not receiving public assistance or known to agencies, and the social service departments in relation to other community projects such as the Boy and Girl Scouts, settlement clubs and the Y. W. C. A.

**A Luncheon for Presidents of State Associations** was held October 22 with Nelda Ross, president-elect, presiding. The keynote of the meeting was the importance of nutrition in the national defense program. The interest shown by the state associations in this matter was repeatedly demonstrated as the representatives presented brief summaries of projects undertaken during the year.

Mary I. Barber, President of the Association, reminded the members that 1941–42 perhaps will be the most important period since the American Dietetic Association was organized. Nutrition is at present one of the most vital subjects in the country and offers us a definite

challenge. Many dietitians are jealous, however, of their prerogatives. She continued, "I must give you a word of warning. This is our opportunity to do a job but the job must be done in cooperation with other agencies. Remember that everyone cannot be a general. Sometimes the best service can be given as a worker on a committee rather than as chairman. The reports of the women's work in England show that there is the finest type of cooperation between agencies; in fact, two of the most prominent social agencies have combined and although each wears its own uniform, there is no differentiation in the leadership. It may be that we can learn a lesson from the selfless service which Englishwomen are giving to their country."

Miss Barber added, "Everyone will have to contribute from her leisure time. If there is to be qualified leadership for the many groups wishing to study nutrition, much of the leadership must come from members of the American Dietetic Association. This will mean personal sacrifices in order to teach classes at the end of the unusually busy days which all of you are experiencing. A great deal will be expected of our membership on the nutritional line of total defense. I am confident that you will meet the call as it comes to you."

Other guests at this meeting, Eloise Davison, Assistant Director of Civilian Defense, and Dr. Helen S. Mitchell, Federal Security Agency, emphasized the important points of the defense program as it concerns nutritionists, explaining briefly the results already obtained and the plans for the future.

Mary B. Clark of Texas reported an increase in membership from 26 to nearly 100. Projects in this state association have included registration of all trained dietitians and home economists in the state; preparation and dissemination of the Texas Food Standard and a study of low-cost diets published under the title "Better Meals for Less Money." The Texas State Nutrition Committee has done very effective work in cooperation with the state defense programs.

Washington, the first state to be affiliated with the national Association, was represented by the state president.

The refresher courses for dietitians conducted by the Massachusetts association have proved of general interest and have been very successful.

In Missouri, the state has been divided into 20 areas with a nutrition committee in each. A three-day nutrition seminar was held in St. Louis to coordinate the objectives for these committees. The Kansas City group is assisting the Y.W.C.A. in sponsoring three nutrition programs and the St. Joseph Nutrition Service provides information concerning an adequate diet, low-cost menus, etc., on request. A similar service will be made available through the county nutrition committees.

Lavern Owens, California, told of two very successful refresher courses conducted by this association. A study has also been made here of low-cost diets, and work has continued on the national defense program.

The District of Columbia Dietetic Association's most important contribution to the defense program was the volunteer service of individuals. Members have served as instructors in a series of training courses in setting up emergency canteens organized by the local Red Cross chapter and the Women's Voluntary Services.

The New York association was instrumental in setting up speaker's bureaus in most of the local associations. A number of refresher courses, nutrition courses for laymen, and canteen courses have been given. One activity of the Buffalo group was a study of the food situation in the rapidly growing communities engaged in defense activities in and near Buffalo.

Helen D. Cate, representative of the Florida association, told of the news letter which keeps their 40 members up to date on matters concerning national defense and other information.

The Delaware Dietetic Association has sent out letters to various organizations, asking that each devote a program to nutrition and offering to accept the responsibility for these programs. A leaflet describing the requisites of an adequate diet is being prepared in cooperation with the Extension Service.

The Virginia association reported the appointment of a hospital dietitian to the state nutrition committee and cooperation with the state defense program. A school lunchroom manual was also completed and published.

The Ohio association has completed its school lunchroom manual. The Nutrition in Defense Committee, headed by Dr. Martha Koehne, has been very active during the past year.

The Wisconsin association has distributed 15,000 cards depicting the constituents of a

normal diet. Questions which have been received concerning the normal diet have been answered and used as a basis for radio broadcasts. Speaker's bureaus have been organized. The association has offered its services to the Red Cross, making it possible for all courses in nutrition to be given by a nutritionist.

Dr. Lillian Storms explained the type of refresher courses offered by the Michigan association. This group also reported the publication of a state bulletin and the formation of a Library Committee working in conjunction with the State Library Commission. Dr. Storms stated that the defense program is well set up within the state.

The Maryland association has five members serving with the Committee on Nutrition for the Maryland State Council of Defense. Many members are instructing Red Cross classes in nutrition or canteen service. The rural school lunch program, which is being continued, includes the distribution of helpful bulletins to professionally untrained managers.

The New Jersey association, cooperating with the home economics association, raised $1500 in one month for the purchase of a mobile kitchen. Their school lunchroom project is being continued.

The four model rural school lunchrooms exhibited by the Kansas association at this meeting illustrate how this group has handled the varying school lunchroom problems.

The work of the Kentucky association, as reported by Gertrude Walker, has centered around the defense program. In addition, a Louisville newspaper has asked the association to contribute 80 articles on nutrition, which means that the group will practically take over the food editorship of the paper.

The Nebraska association has been keenly interested in the defense program. One interesting project of the Omaha association was the purchase of advertising space on street car cards, through which medium the attention of 4800 people a day is engaged by such slogans as "Plan Simply", "Buy Wisely", "Cook Economically" and "Waste Nothing". The name of the association appears on each card.

Also in attendance was a representative from the Hawaii association, Veda M. Tochterman, who reported 12 active members at the beginning of that association's third year. Miss Tochterman stated that many meetings connected with the defense program had been held throughout the summer.

Although the rest of the states undoubtedly had as interesting and profitable a year, time did not permit reports from all those present.

**Dietitians in State Hospitals.** A meeting of dietitians in state hospitals, held in St. Louis on October 22, was directed by Christine R. Pensinger. In speaking of administrative problems that confront the dietitian in state institutions, Mrs. Pensinger pointed out that the present world emergency has directly affected dietary departments in many ways; for instance, the complete packs of certain products ordered by the Army; the marked decrease in importation of foreign foods such as pineapples and sardines; the marked rise in food costs and wages; and the fact that it is becoming more difficult to obtain all types of employees. The necessity of keeping all equipment in good repair was emphasized, since new equipment is not only scarce but costly.

Mrs. Pensinger reported on interesting projects under way in the institutions in Illinois. The manual for the training of employees in the dietary department is being used as a text in these institutions, with classes held weekly and examinations given at the close of each period. Recipes to be used in state institutions are being studied and will be available soon. Through the WPA dietary project, special diets for use in state institutions have been published. This year approximately 35,000 gallons of peaches were canned at one institution and it is expected that, due to the difficulty in securing a good quality of canned goods on the market, a definite program will be set up for the production and canning of sufficient fruits and vegetables to supply all Illinois institutions.

In conclusion, Mrs. Pensinger emphasized the need of dietitians in state institutions and pointed out that each one so employed is responsible for furthering the placing of others in state institutions.

Katherine Keller, East Moline, Illinois, explained in detail a plan which has just been put into operation. Patient-employees will no longer be placed in the dietary departments. If this plan proves practical, it will be applied in the other Illinois state institutions.

**Pennsylvania State Meeting on Nutrition and Consumer Problems.** With Dr. Laura W. Drummond, chairman, Pennsylvania State Nutrition Council, presiding, a meeting sponsored by the State Nutrition Council and State Council of Defense was held at Harrisburg September 26–27. Among the speakers and subjects were the following:

Dr. Arnaud C. Marts, Executive Director, Pennsylvania State Council of Defense, Pennsylvania's Program of Civilian Defense.

Dr. William Mather Lewis, Pennsylvania State Director of Selective Service, Lessons in Nutrition from Selective Service.

Melva Bakkie, American Red Cross, The Nutrition Program of the American Red Cross.

Dr. Herbert T. Kelly, Chairman, Nutrition Committee, Pennsylvania State Medical Society, Nutrition and Medicine.

Dr. Helen S. Mitchell, Director of Nutrition, Federal Security Agency, Applying Nutrition Research.

State Nutrition Council Reports: Phyllis K. Sprague, Utilization of Food Resources; Anna dePlanter Bowes, Conservation of Human Resources; Margaret Brown, Leadership in Community Nutrition; Florence Peters, Nutrition Study Outlines.

Carl A. Hile, State Supervisor, Surplus Marketing Administration, The Present Status of Surplus Commodities.

Mrs. David E. Hoff, Pennsylvania Federation of Women's Clubs, Nutrition Programs of Pennsylvania Federated Women's Clubs.

Dr. Pauline Beery Mack, Director, Ellen H. Richards Institute, Pennsylvania State College, The Need for Community Action.

Dr. Laura W. Drummond, Director, Department of Home Economics, Pennsylvania State College, What Can the Community Do?

Harriet Elliott, U. S. Office of Price Administration, The Consumer Faces Inflation.

Dr. Pauline Beery Mack, Food: Consumer Buying During the Defense Period.

**Michigan Dietetic Association.** Through the Michigan State Nutrition Commission, headed by Dean Marie Dye of Michigan State College, members of the state dietetic association are actively engaged in the defense program. In September regional meetings were held throughout Michigan and dietitians have assisted or are planning to assist in presenting nutrition exhibits, a series of nutrition lectures, school lunch programs and classes in nutrition, large group feeding and canteen work for the Red Cross. In November a state nutrition meeting was held in cooperation with the Michigan Public Health Association.

**Greater New York Dietetic Association** met on November 5 at Montefiore Hospital. Nelda Ross, President of the American Dietetic Association, spoke on the past year's achievements and future aims of the A.D.A., and Ruth Mercer, Mary Dodge, and Estelle Cohen discussed the student dietitian's point of view.

**Oklahoma Dietetic Association.** Dr. Gladys Kinsman, formerly in charge of Human Nutrition Research, Oklahoma A. and M. College, is now on the staff of the North Carolina College for Women. Dr. Williamina E. Armstrong, formerly of the University of Illinois, is now head of the Department of Home Economics Research, at the first mentioned college. Alma White, assistant professor, Household Science, Oklahoma A. and M. College, is on leave of absence for a year's study at Columbia University.

Eloise Argo, formerly dietitian at Mt. Sinai Hospital, Cleveland, is now dietitian at Crippled Children's Hospital. Violet Rohrer, formerly administrative dietitian, University Hospital, is now dietitian at Epworth Hospital, South Bend, Indiana.

**Philadelphia Dietetic Association** met on October 14 at the Bok Vocational School. Guests included student dietitians from all Philadelphia hospitals and home economics students from various nearby colleges. The speaker, Mr. Clarence B. Kugler, Board of Education, Philadelphia, took as his subject, "School Cafeterias."

On November 8 the association met at the Bellevue-Stratford Hotel, with the following program: "What Every American Should Know About Nutrition", Dr. Lydia J. Roberts, Home Economics Department, University of Chicago; "Panel Discussion: How This Nutrition Knowledge May Be Carried into the Community"; "Reaching Those Who Eat Away from Home", Dr. Mary de Garmo Bryan, Department of Institution Management, Teachers College.

A Professional Education Work Conference was held November 25 at Drexel Institute of Technology with Lillian F. Hack presiding, and the following program: "Work of the Professional Education Committee of the American Dietetic Association", Grace Godfrey, School of Home Economics, Drexel Institute of Technology; keynote speech, Henriette Pribnow, Dietary Department, Jewish Hospital; "How Can the Dietitians' Teaching Problems Concerning

Student Nurses Be Met Effectively?", Amanda Ebersole, School of Home Economics, Drexel Institute of Technology, and Maxine McCown, St. Luke's and Children's Hospital; "How Adequate is the Pre-Service Training Now Given in Colleges for Future Dietitians?", Virginia Bounds, Philadelphia General Hospital; "Does the Present In-Service Training, or Intern Training, Meet the Dietitian's Needs?", Mary Gordon, Mt. Sinai Hospital, and Miriam E. Gaige, Presbyterian Hospital.

An evening session was held in the Drexel Auditorium with Grace Godfrey presiding, at which Henderika J. Rynbergen, New York Hospital, discussed "Nutrition in the Nursing Curriculum." Guests included educational directors of training schools and members of the Philadelphia Home Economics Association.

**Utah Dietetic Association.** Emily Jane Leigh, Latter-Day Saints Hospital, was a delegate to the national convention. Sylvia Martel, graduate of the student training course at the same hospital, has been appointed to Price General Hospital, Price, Utah. Katharine Bielby, also of the same hospital, has been appointed a member of the Utah Nutrition Council, as representative of the Utah Dietetic Association.

Dr. Helen S. Mitchell, Office of Defense Health and Welfare Services, Washington, visited in Salt Lake City November 14–15.

**The Eighteenth Annual Women's National Exposition of Arts and Industries,** sponsored by the Women's National Institute, New York, was held at the Grand Central Palace, October 27-November 1. A competition open to the housewife, teacher of home economics, and dietitian, concerned the planning of an emergency meal with limited supplies. The judges were Isabel Ely Lord, chairman; Joan Rock, director, School of Home Economics, Pratt Institute; Martha Westfall, director of cooking, New York City Schools; Dr. Helen Judy Bond, head, Department of Household Arts and Sciences, Teachers College, Columbia University; and Mrs. Dora S. Lewis, chairman of home economics, New York University.

**Council on Foods and Nutrition, American Medical Association, Announces Appointment.** Dr. C. A. Elvehjem, Madison, Wisconsin, has been appointed to succeed the late Dr. Mary Swartz Rose on the Council on Foods and Nutrition.

**New York Diabetes Association, Inc.,** announced its removal as of September 5, to 2 East 103rd St., New York.

**Correction.** The last eight items appearing under the Have You Heard? column of the October JOURNAL were incorrectly attributed to the Virginia Dietetic Association. These should have been credited to the New York State Dietetic Association.

**Colleen Cox Hambleton,** assistant editor of the JOURNAL, in charge of the Current Literature section, is taking several months leave of absence from the Dietary Department, Johns Hopkins Hospital, to assist in the Food Utilization Division, Department of Agriculture, at Beltsville, Maryland. Mrs. Hambleton will assist in writing bulletins.

**Emily Timlow Appointed Red Cross Nutritionist.** As newly appointed nutritionist for the San Francisco Chapter of the American Red Cross, Miss Timlow supervises the cafeteria where luncheon is prepared for Red Cross workers, directs a course in nutrition and in possible emergency mass feeding through canteen service. The response from the public to the nutrition instruction offered by the Red Cross has been most encouraging, according to Miss Timlow.

**News from our Advertisers and Exhibitors.** *Mead Johnson,* Evansville, Indiana, writes in regard to their Council-Accepted products as follows: "If they could talk, Council Seals would say: 'When you see one of us on a package of medicine or food, it means first of all that the manufacturer thought enough of the product to be willing to have it and his claims carefully examined by a board of critical, unbiased experts . . . . We're glad to tell you that this product was examined, that the manufacturer was willing to listen to criticisms and suggestions the Council made, that he signified his willingness to restrict his advertising claims to proved ones, and that he will keep the Council informed of any intended changes in product or claims. There may be other similar products

as good as this one, but when you see us on a package, you know.'"

*McGraw Electric Company*, Elgin, Illinois, have just published a most attractive booklet entitled "Toast-Ways to Profit" which all dietitians will find helpful in planning the many attractive dishes so readily and economically prepared with the aid of the Toastmaster. A great many recipes are included and several of these are illustrated in color and black and white. Also included are details regarding the several Toastmaster models for large and small food services.

A recent release from *Armour & Company*, Chicago, describes their line of table-dressed poultry, government inspected and quick-frozen. The brochure tells how the poultry is prepared and shows in graphic form the percentage of waste when poultry is purchased in the usual form. The Armour line of frozen fresh chickens can be purchased cut up suitable for broiling, frying or stewing. Another new product of the company is individually molded Cloverbloom Butterettes. Descriptive folders concerning the products mentioned and others are available upon application to the company in Chicago.

Helpful data available from the *Kellogg Company*, Battle Creek, Michigan, includes a collection of new material just released, arranged in convenient card form for filing, and presenting attractive menus for holiday occasions, followed by other cards detailing the full directions for the preparation of the dishes mentioned in the menus. The menu cards appear in color, the recipe cards in white, for rapid reference. Another folder released includes an interesting story on the vitamins up to date and a chart listing the food sources of these. A third covers meal planning, and a fourth, information helpful in solving the dietary problems of allergy.

At the St. Louis meeting the *Hilker & Bletsch Company* showed three new items which proved to be very interesting to all the dietitians. These were "Cofeez" and "Teez" (powdered coffee and tea) and Powdered Molasses. "Cofeez" is made from a brew of coffee, powdered with maltose, dextrins and dextrose, while "Teez" is made from a steep of orange pekoe tea powdered with the same ingredients in order to seal in the flavor. A teaspoon of either in a cup of hot water dissolves instantly and makes a really delicious beverage. The Powdered Molasses is made from pure New Orleans molasses, is readily soluble in either hot or cold water and retains all of the original minerals and other food constituents.

V-C-B (Vitamin C Beverage), as usual, was one of their featured products at the convention. When dissolved in water V-C-B has the same vitamin C content as fresh orange juice and has been designed to be used along with the fruit juice. It has so many advantages that its popularity in institutions is increasing year by year.

*Frosted Foods Sales Corporation*, packers of the well-known "Birds Eye" brand of frosted foods, announce the release of a new motion picture, "New Foods Make News." The picture, which is in sound, with Technicolor sequences, was made by one of the country's leading producers and has already been acclaimed as one of the finest commercial films ever released. The story starts with a "chuckle" as a two-fisted newspaper reporter is assigned to work for the women's page editor on a difficult story. Our reporter starts "tracking down" the story in an interview with the dietitian of a local hospital. Then there's a trip to one of the Birds Eye packing plants—the largest quick-freezing plant in the world—and every step in the growing, packing and quick-freezing of Birds Eye vegetables is interestingly portrayed. The film is as fascinating as it is educational and will provide 25 minutes instructive entertainment for any group of members of the A.D.A. who would like to have it shown at one of their meetings. There is no charge, no obligation—the Birds Eye folks will be glad to put on the show for you. Just write to Marketing Department, Frosted Foods Sales Corporation, 250 Park Avenue, New York, and mention the date on which you would like to have the film shown. (And, give them plenty of advance notice—as we know there is a big demand for the film.)

*Citrus Concentrates, Inc.*, Dunedin, Florida, manufacturers of "Sunfilled" concentrated orange and grapefruit juices and natural strength orange, grapefruit and lime juices, writes that "Sunfilled" products have been shipped to England in considerable amounts and that the Quartermaster Corps Subsistence Laboratory has approved "Sunfilled" products for northern Army bases and elsewhere when indicated.

*Standard Gas Equipment Corporation* announces that Mr. Arthur W. Jones, their sales promotion manager, has been called to Washington to work with O.P.M. as chief statistician of one of the sections. In his absence, Mr. Robert E. Laffin, assistant to Mr. Jones, will take over his responsibilities. Another executive, Mr. W. Frank Roberts, president of Standard Gas Equipment Corporation is O.P.M. coordinator for Maryland and also in charge of priorities in Baltimore.

Attention is called to the unusually attractive booklets and pamphlets available through the Department of Home Economics of *Libby, McNeill & Libby*, Chicago. These give full details as to the different types of Libby food products, their selection, processing, purchasing and use, including pickles and condiments, vegetables and fruits, juices, milks, baby foods and canned meats. One group of artistic folders lists small quantity recipes for several types of fruit dishes.

Dr. Louis Klein, director of clinical research at *Hoffmann-LaRoche, Inc.*, Nutley, N. J., died on October 24 at Newark, New Jersey. As clinical research director at the pharmaceutical plant since 1935, Dr. Klein edited the *Roche Review* and directed research of interest to the medical and dietetic professions.

*Mission Dry Corporation of Los Angeles*, pioneer in the manufacture of citrus fruit juice beverages and other allied products, has developed a new process for concentration of citrus fruit juices. There has been a demand among volume users of these juices for these products in concentrated form, enabling them to be shipped, stored, and served more economically and conveniently. The Mission process involves a concentration under exceptionally high vacuum, with application of heat which never exceeds 100°. Specially engineered stainless steel equipment was installed at the plant at Los Angeles for this purpose. Certain other refinements have been developed in connection with this equipment which ensure fresh natural flavor in the juices re-constituted from the concentrate merely by the addition of same amount of water as was removed in the process of concentration. Mission reports quick acceptance of these products after sampling tests by hospitals, schools, hotels, army camps, and other institutions in various parts of the country. For further information write to Mission Dry Corporation, 5001 So. Soto Street, Los Angeles.

## *The Food Situation in Europe*

THERE ARE SIGNS that the food position in France may become tragic. The Germans have seized about 60 per cent of all the crops in both occupied and unoccupied France. They have taken the pigs and all other supplies of animal fat. The weekly meat ration of 13 ounces includes bones and trimmings, leaving only about 10 ounces of actual meat. To obtain this quantity it is necessary in certain cities to form queues as early as 4 a.m. In the cities there is no butter or suet. Soap is almost unobtainable. Stocks of fruit are rapidly coming to an end; as much as 25 cents is sometimes paid for an apple. The Germans have removed from Normandy and Brittany all the cider apples for the manufacture of some war product of which the nature is not known. The restaurants serve food against ration cards, but the amount is inadequate. German officers eating in restaurants are given the ration cards for three persons and other ranks the cards for two. The British government has given the International Red Cross Committee at Geneva an assurance that ships carrying parcels for prisoners of war and containing foodstuffs, blankets and underclothing, will be allowed to proceed freely to Europe.—*Foreign Letters, J. A. M. A., 116: 642, 1941.*

## WHO'S WHO IN THIS ISSUE

**M.S.Pittman, B.L.Kunerth,** and **N.Edelblute** were members of the Department of Food Economics and Nutrition, Division of Home Economics, Kansas State College, Manhattan, at the time this study was made. **G. Cox, E. Shepek,** and **J. Chen** were graduate students in the same department. **H. McKay** and **M. B. Patton** are members of the staff of the School of Home Economics, Ohio State University, Columbus.

**Mrs. Elizabeth Olsen Hesser** received a B.S. in home economics at the University of Colorado in 1933 and completed the course for student dietitians at the Johns Hopkins Hospital in 1934. During the next two years she was assistant dietitian at the Charles T. Miller Hospital, Inc., St. Paul. In 1937 she was appointed to the staff of the Johns Hopkins Hospital and in the fall of that year became the dietitian on the metabolism research ward where she worked in association with Dr. George W. Thorn. This past June she resigned to join her husband, Dr. Frederick H. Hesser, resident in neurology at Duke Hospital, Durham, N. C.

**Grace Bulman,** superintendent of dietitians, Veterans Administration, Washington, D. C., was noted under this section for October.

**Margaret E. Terrell,** director, Residence and Dining Halls, University of Washington, was noted under this section for November. **Willimae Straight,** B.S., University of Washington, 1932, was formerly assistant to the dietitian, King County Hospital, Seattle; catering manager, University Commons, University of Washington, Seattle; and later, manager, University Residence Halls, University of Washington.

**Williamina E. Armstrong,** B.S. and M.S., University of Idaho, and Ph.D., Iowa State College, was instructor in home economics at the University of Illinois at the time the paper appearing in this issue was written. Dr. Armstrong is now professor of household science and head of the Department of Home Economics Research at Oklahoma College of Agriculture and Mechanical Arts, Stillwater.

## *Physiologic Significance of Dessert*

From the physiologic point of view the custom of ending the meal with a dessert probably serves two purposes, that of completely satisfying the appetite and that of providing a final psychic stimulus to the secretion of gastric juice. Those desserts with a high content of sugar or fat or both have a high satiety value. The presence of the sensation of appetite (and of the appetite secretion) is evidence of the physiologic fitness of the gastro-intestinal tract to handle the food eaten, although normal digestion will proceed in the complete absence of appetite juice, which is secreted as a result of the sight, smell or taste of appetizing foods. Thus the serving of an attractive, palatable dessert may be considered a useful, though not indispensable, factor in the proper conditioning of the digestive tract for the performance of its normal function.—*Desserts in the diets of adults and young children, Council on Foods and Nutrition, J. A. M. A., 116: 506, 1941.*

# INDEX TO VOLUME 17

The following abbreviations indicate in which section the material indexed appears: "ab," abstract under current literature; "ar," annual reports; "cc," current comment; "ed," editorial. A star (*) indicates an original article in this JOURNAL. Books reviewed appear in the subject index under the subhead "book reviews." Author index, which follows subject index, includes only the names of authors of original material appearing in this JOURNAL in full or abstracted under the editorial section, and authors of books reviewed.

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2 ozs. every 3 hrs. for 8 feedings

**FEEDING PROGRESS**

| Days of Age | Drams at Each Feeding | Ounces of Feeding per 24 Hrs. |
|---|---|---|
| 1 | 1 | 1 |
| 2 | 2 | 2 |
| 3 | 4 | 4 |
| 4 | 6 | 6 |
| 5 | 8 | 8 |
| 6 | 10 | 10 |
| 7 | 12 | 12 |

(8 drams = 1 ounce)

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